# Lonesome Pine Hospital: Community Health Needs Assessment

Ballad Health

June 30, 2021

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# 1   Introduction

Lonesome Pine Hospital, located in Big Stone Gap, Virginia, is one of the hospitals within the Ballad Health system. Ballad Health is an integrated healthcare system serving 29 counties of Northeast Tennessee, Southwest Virginia, Northwest North Carolina, and Southeast Kentucky. Ballad was created upon the merger of two large regional health systems, Mountain States Health Alliance and Wellmont Health System, on February 1st, 2018. Through rigorous state oversight, these two competitors have been granted the ability to merge into an integratedhealthcare delivery system with a simple and concise mission: to improve the health of thepeople we serve.

Ballad Health operates a family of 21 hospitals, including three tertiary care facilities, a dedicated children's hospital, community hospitals, three critical access hospitals, a behavioral health hospital, an addiction treatment facility, long-term care facilities, home care and hospice services, retail pharmacies, outpatient services and a comprehensive medical management corporation.



### Ballad's hospitals include:

- Bristol Regional Medical Center
- Dickenson Community Hospital
- Franklin Woods Community Hospital
- Greeneville Community Hospital
- Hancock County Hospital
- Hawkins County Memorial Hospital
- Holston Valley Medical Center
- Indian Path Community Hospital
- Johnson City Medical Center
- Johnson County Community Hospital
- Johnston Memorial Hospital
- Lonesome Pine Hospital
- Mountain View Regional Hospital
- Niswonger Children's Hospital
- Norton Community Hospital
- Russell County Hospital
- Smyth County Community Hospital
- Sycamore Shoals Hospital
- Unicoi County Hospital
- Woodridge Hospital
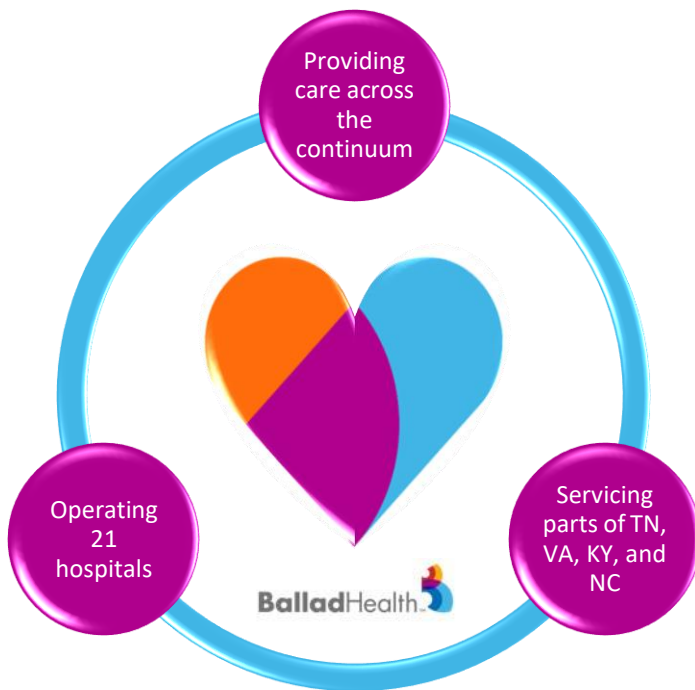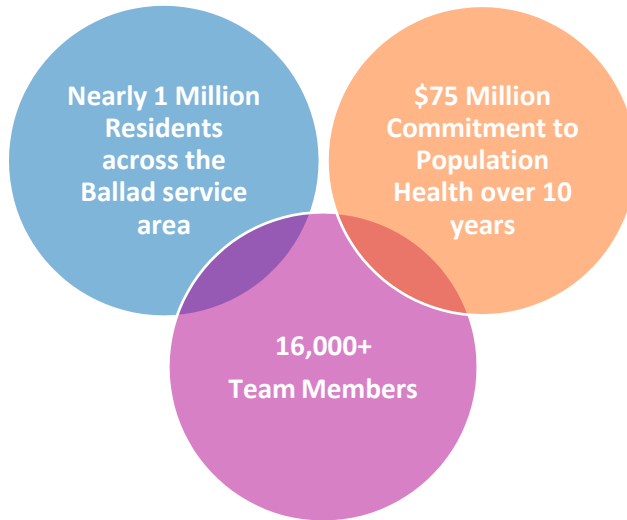
### Ballad Health Mission:

Ballad Health is committed to honoring those we serve by delivering the best possible care.

### Ballad Health Vision:

To build a legacy of superior health by listening to and caring for those we serve.

The tagline of Ballad Health - "It's your story. We're listening." - is more than a marketing tool. Through the comprehensive state oversight and merger processes, Ballad Health system was created to meet and address local health needs. Realizing that people want to receive care from someone who really listens to them, the organization's name and tagline speak to the fact that good health is about more than healthcare – it's the story of people's lives. Located in the heart of Appalachia, Ballad Health pays homage to the traditions and stories that have shaped people's lives; yet, the organization also looks for new ways to partner with individuals and communities to make the region a healthier place to live and work.

With hospitals and services strategically placed throughout the region, Ballad Health is positioned to be the region's largest health care provider. The system's primary service area is comprised of 21 counties across Northeast Tennessee and Southwest Virginia, with a secondary service area encompassing an additional six counties in Western North Carolina and two counties in Southeastern Kentucky.
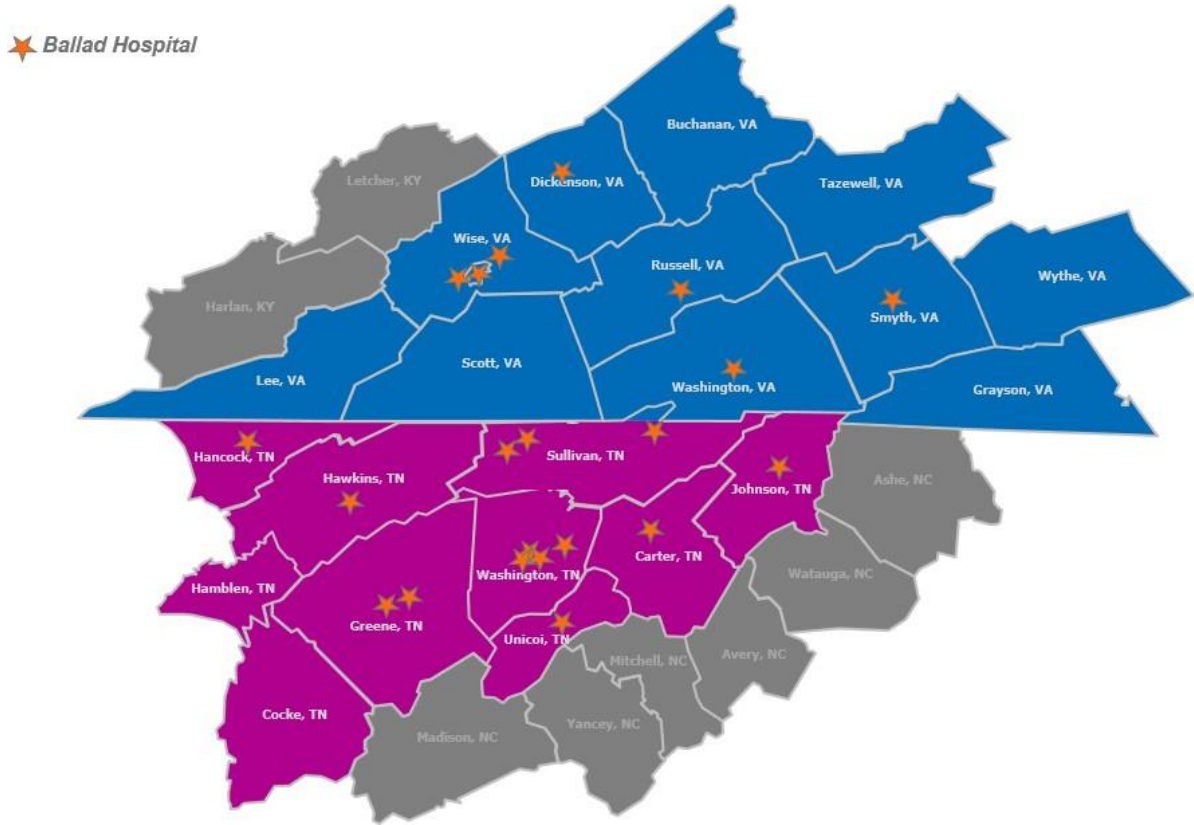
# 2   Executive Summary

Ballad Health is heavily invested in the health and well-being of its communities. In addition to its enhanced focus on population health management through the merger of the two legacy health systems, Ballad is also the largest employer in the region and the fourth largest employer in the State of Tennessee.  Being such a prominent member of the regional economic community, Ballad has a strong desire to improve the health of the region, as well as its employees and their families. Realizing that health is tied to more than just genetics, Ballad is working towards a deeper understanding of the socioeconomic issues that face the population's ability to improve their overall health status.  Social determinants of health related to topics such as access to care and the ability to understand complex health conditions often times go hand in hand with people's capacity to make optimal health decisions. Nevertheless, Ballad Health views the current health disparities of the Appalachian region as the opportunity to go beyond the walls of the hospital and work hand-in-hand with communities to make sustainable change happens for generations to come.

 As part of the state oversight process, Ballad Health and its hospitals and entities have committed to improving the health status of its service area counties by agreeing to focus on an index of access, quality and population health measures. The population health metrics create a platform for Ballad Health to further engage the efforts of its hospitals in partnership with the surrounding communities in order to drive change in a region that has a number of health disparities and access challenges.  Leveraging the community health needs assessment (community health needs assessment) process has helped Ballad to further understand and educate on the health disparities that appear across the individual communities within its service area and has also helped the organization prioritize those issues that are most important in each hospital's community.

In order for Ballad to serve its region most effectively, it is essential to understand each community's individual needs. As such, Ballad Health conducted community health needs assessments guided by frameworks and best practices in order to successfully profile the health of the residents within its service areas. Activities associated with the development of this assessment have taken place from summer of 2020 through the spring of 2021. Primary data was obtained through key stakeholder surveys and focus groups with participants from the local communities, while secondary data was collated from national, state, regional, and county-specific data sources.

Throughout this community health needs assessment process, high priority was given to determining the health disparities and available resources within each community. Key stakeholders from each county participated in focus groups where discussion was centered around the prioritization of current health priorities and identification of potential solutions. The information gathered from a local perspective, paired with county, state, and national data, help to communicate the region's health situation in order to begin formulating solutions for improvement.

According to the 2020 America's Health Rankings, Tennessee ranked 45th and Virginia ranked 19th out of 50 states for overall health outcomes.  Both states had high rates of obesity, heart disease, addiction, and mental health concerns.  Though Virginia's overall ranking is significantly higher than that of Tennessee's ranking, the health outcomes in Southwest Virginia counties, where Ballad facilities are located, resembles those of Tennessee. After compiling the various sources of information and using population health index as a starting point for discussion, the top health priorities were identified for the communities that each of the hospitals serve. This effort has led to the determination of the top three priority areas for Wise County to include **substance abuse, chronic disease, and access to care.** There are certainly a number of other health challenges in this community, but these rise to the top based on the assessment.

# 3  Lonesome Pine Hospital

## 3.1  Facility Description

Lonesome Pine Hospital, located in Big Stone Gap, Virginia, is a 78-bed (60 inpatient and 18 emergency department) hospital.  The community of Big Stone Gap, Va., relies on Lonesome Pine Hospital for the best in emergency care and obstetrics, as well as its medical/surgical/pediatric unit.  The outpatient services include radiology, physical therapy and surgical services.  Also provided is the most high-tech cancer care through the Southwest Virginia Cancer Center.



## 3.2  Scope of Services

Lonesome Pine Hospital offers a range of services including the following:

- 24/7 Emergency Care
- Obstetrics
- Medical/Surgical/Pediatric Care
- Cancer Care through the Southwest Virginia Cancer Center

## 3.3   Primary Service Area

Lonesome Pine Hospital serves the populations of Wise, Lee County, and Dickenson Counties in Virginia. The map below highlights these three counties.
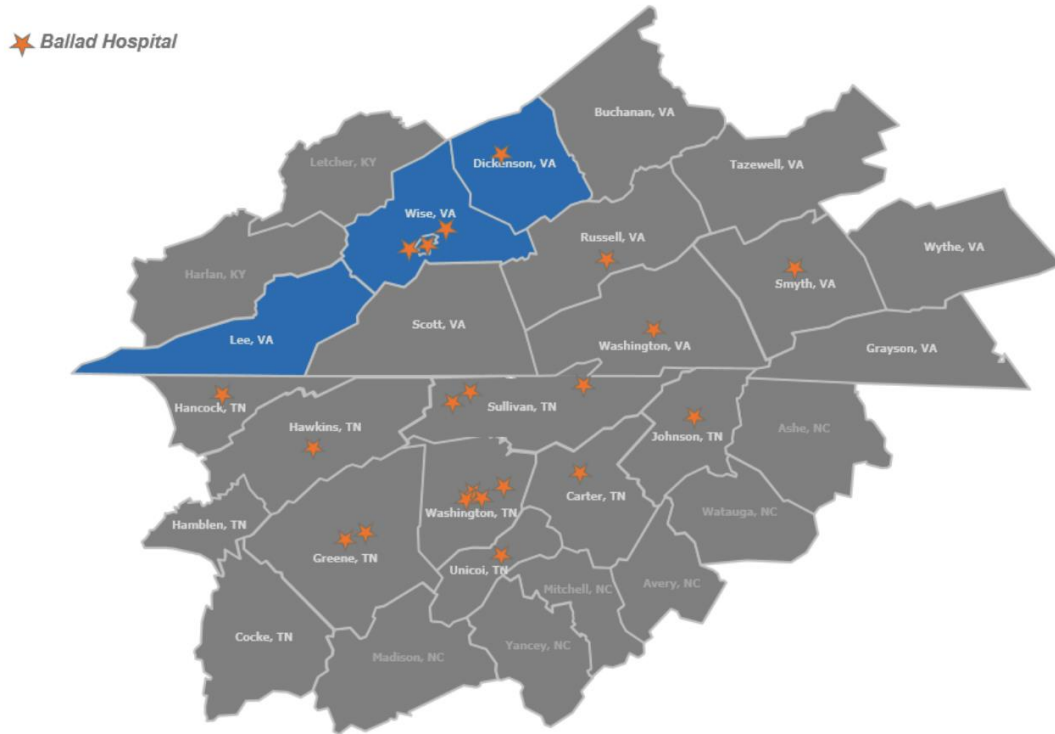
# 4    Community Assessment Process Summary

## 4.1    Market Overview

Lonesome Pine Hospital, located in Big Stone Gap, Virginia, primarily serves Wise County, Virginia. Wise County has a population of 44,158. The population projections for Wise County over the next five years show that the county will likely experience a slight decline in population overall. However, the age 65+ population for Wise County is projected to experience most population change over the next five years, as it moves from 19.6% of the total population in 2021 to 21.9% of the population in 2026. The aging population of the county presents opportunities for earlier identification and better management of health conditions that oftentimes affect elderly populations in rural areas.

Additionally, the median household income for Wise County is $38,000 which ranks well below the average for the state of Virginia at $72,600. Notably, 28.7% of children in Wise County live in poverty, compared to the Virginia average of 13.3%.  Other demographic factors influencing health status in the county also includes education levels. A large portion of Wise County residents do not have an education past high school (54.9%). The remaining portion of the population reports having some college/associates degree (31.6%) or a bachelor's degree of greater (13.5%).

According to the 2021 County Health Rankings, Wise County, where Lonesome Pine Hospital is located, is ranked among the least healthy counties in Virginia. Wise County is ranked 125th in Virginia for health outcomes and 127th for health factors out of 133 counties/cities. Wise County also ranked 123rd in health behaviors, due to higher than desired rates of adult obesity, physical inactivity, adult smoking, and alcohol-impaired driving deaths. As for social and economic factors, Wise County ranks 125th due to high rates of children in poverty and higher unemployment rates. A graphical representation of the 2020 County Health Rankings for Wise County components can be found in the appendix.

## 4.2    Methodology for Collecting Community Input

### 4.2.1    Model/Framework Selection

In the earliest stages of the 2021 community health needs assessment process design for all Ballad Health facilities, numerous guiding frameworks, models, and toolkits were reviewed and analyzed for their potential to serve as the planning model for the assessment. Following in-depth discussions with Ballad Health leadership, it was decided the 2021 community health needs assessment process would be guided by the Mobilizing for Action Through Planning and Partnerships (MAPP) model, with an understanding that aspects of the model may have to be adapted due to the purpose of the assessment for Ballad Health and constraints related to the COVID-19 pandemic. In coordination with the MAPP model, concepts from both Community-Based Participatory Research (CBPR) and the Arkansas Center for Health Improvement (ACHI) Community Health Assessment Community Health Assessment Toolkit were also utilized for the assessments.

The MAPP model, developed by the National Association of County and City Health Officials (NACCHO) in coordination with the Centers for Disease Control and Prevention (CDC), functions as a six-phase, strategic planning process for communities with the primary aim of improving health. Broadly speaking, the MAPP model allows for the identification of pressing community issues, provides understanding of the current state of resources within a community, and provides the foundational pillars needed to develop action plans for health improvement. The completion of the process outlined in the MAPP model results in two deliverables: (1) Community Health Needs Assessment and (2) Community Health Improvement Plan. As mentioned, components of the MAPP model will be slightly adapted to meet the needs of Ballad Health's community health needs assessments. For a summary of how Ballad Health's 2021 community health needs assessment process will align with the MAPP model phases, please view Table 2 below.

As shown in Table 2, the first step in the planning process was the creation of a Regional Assessment Workgroup between Ballad Health, all local health departments in Ballad Health's geographic service area (GSA), Tennessee Department of Health County Health Councils, and local health coalitions. This regional workgroup was tasked with the creation of core indicators to be included and assessed, shared processes and practices for methodology, and the identification of synergies and paths to collaborate between Ballad Health and all other entities represented in the regional workgroup in terms of community health needs assessment efforts. The goal of this collaborative effort for the community health needs assessment process is to minimize community assessment fatigue and leverage efforts and resources utilized during the assessment process.

Ballad Health utilized a mixed-methods approach for primary and secondary data collection to gather regional information to inform the 2021 community health needs assessments. The secondary data collection entailed the compilation of secondary data pertaining to agreed upon metrics and indicators from an array of verified sources. The primary data collection component involved both a key stakeholder survey and key stakeholder focus groups. Findings from both research methods were used to prioritize the needs of the community served by each Ballad Health facility and determine priority focus areas for future improvement efforts.

| Table 2 | |
|---|---|
| **MAPP Model Phase** | **Ballad Health 2021 Community Health Needs Assessment Process** |
| **1. Organize for Success/Partnership Development**<br><br>Stakeholders within the community gather to form partnerships and foster collaboration for assessments guided by the MAPP model. | ▪ Development of Regional Assessment Workgroup between Ballad Health, all local health departments in Ballad Health's geographic service area (GSA), Tennessee Department of Health County Health Councils, and local health coalitions. |
| **2. Visioning**<br><br>Individuals from Phase One determine the primary focus and vision for the MAPP process. | ▪ Development of core indicators, shared processes, and practices.<br>▪ Identification of synergies and paths to collaborate.<br>▪ Creation of shared vision for the overall health and well-being of Northeast Tennessee and Southwest Virginia Communities. |
| **3. MAPP Assessments**<br><br>Quantitative and qualitative data from both primary and secondary data sources are compiled for the purpose of understanding the current state of the overall health and well-being of the community. | ▪ Development of secondary data packages for community data.<br>▪ Distribution of Key Stakeholder Survey.<br>▪ Facilitation of facility-based focus groups. |
| **4. Identify Strategic Issues**<br><br>Data are analyzed to determine issues within the community that serve as impediments to reaching the vision detailed in Phase Two. | ▪ Statistical and thematic analysis for survey results and focus group findings performed to identify issues within communities.<br>▪ Further prioritization of community issues with key stakeholders from each community. |
| **5. Formulate Goals and Strategies**<br><br>Goals and strategies are identified by the community to address the strategic issues identified in Phase Five. | ▪ Potential goals and strategies are identified by key stakeholders in each focus group.<br>▪ Facilitation of another round of focus groups for each facility to further parse out action plan components.<br>▪ Potential goals and strategies inform the development of Community Health Needs Assessment Implementation Plans to be brought to leadership at each facility.<br>▪ Finalization of Implementation Plans. |
| **6. Action Cycle**<br><br>Based on the goals and strategies from Phase Five, action plans for the achievement of the vision outlined in Phase Two are implemented and evaluated. | ▪ Community Health Needs Assessment Implementation Plans are implemented and evaluated for each facility. |

### 4.2.2   Secondary Data Compilation

In accordance with the MAPP model, once desired metrics were identified and agreed upon by all members of the regional workgroup, comprehensive data packages were created for all counties in Ballad Health's GSA. In knowing that research estimates that at least 80% of a person's health is related to non-medical factors, the data packages were designed to incorporate both medical and non-medical factors with equal importance in terms of their role in the overall health and well-being of the community. The data packages include approximately 60 metrics for each county in Ballad Health's GSA concerning each of the following overarching topics: health outcomes (15 metrics), health behaviors (14 metrics), health determinants (12 metrics), physical environment (3 metrics), clinical care and health resources (11 metrics), maternal and infant health (3 metrics), and adverse childhood experiences (2 metrics).

The data packages were shared with key stakeholders in the community in an excel workbook format. Two separate excel workbooks were created, one for the Northeast Tennessee counties and one for the Southwest Virginia Counties. Within each workbook, an instruction tab detailing how to interpret and utilize the data was included, as well as separate, alphabetized tabs for each county in those associated areas. Within each tab, metrics were organized into tables based on the seven topics listed above. For each metric, the following components were presented in the associated table:

- Metric name
- Metric definition
- Metric value for the associated county
- Metric value for associated state
- Hyperlink to data source where metric was found

### 4.2.3   Key Stakeholder Survey Design

Following guidance from the MAPP model, the Key Stakeholder Survey was designed with the primary aim of identifying the most-pressing community issues. In aligning with principles of CBPR, the key stakeholder survey was designed to allow key stakeholders to frame community issues in their own words through the use of open-ended questions. In addition to the identification of community issues, the key stakeholder survey was also designed to discern why survey respondents believed the community issues they selected had the greatest effect on the overall health and wellbeing of their community. Questions related to ideas and suggestions for improvement efforts, gauging the success of efforts after the previous community health needs assessments, and community struggles related to the COVID-19 pandemic were also included in the survey.

Data from the key stakeholder survey was coded and analyzed via MAXQDA Analytics Pro 2020. Data was coded and analyzed by primary and secondary coders who are team members of the Division of Population Health within Ballad Health.

### 4.2.3.1 Key Stakeholder Survey Demographics

The survey was comprised of thirteen questions, with those being a combination of both close-ended and open-ended questions. Both statistical analysis and thematic analysis were performed on survey results dependent on the question type (statistical analysis for close-ended questions and thematic analysis for open-ended questions) in order to obtain frequencies and percentages. The survey was distributed via Survey Monkey from the Division of Population Health at Ballad Health to key stakeholders in Northeast Tennessee and Southwest Virginia that were identified by leadership at Ballad Health. Stakeholders were selected due to their involvement in the health of the community and their direct relationship to the communities served. The survey was distributed to approximately 350 stakeholders, who each represent unique organizations in Northeast Tennessee and Southwest Virginia.

One hundred and sixty-nine (n=169) organizations completed the survey, for a response rate of 48%. In terms of the geographical breakdown of survey respondents, 36% of survey respondents listed at least one county in Southwest Virginia as part of their service area, and 64% of survey respondents listed at least one county in Northeast Tennessee as part of their service area. There was some overlap in terms of the geographical breakdown of survey respondents for individuals who work in both Northeast Tennessee and Southwest Virginia; those individuals are represented in both categories. Survey respondents represented an array of different sectors in the community, which included the following:

- Law Enforcement
- Religious Communities/Churches
- School Systems
- Governmental Organizations
- Health Departments
- Non-Profit Organizations
- Academic Institutions
- Businesses
- Health Care System.

All key stakeholder survey questions and associated findings are listed in the Appendix. Findings are filtered to reflect the responses of key stakeholders in the state in which the facility is located. Because Wise County is located in Southwest Virginia, survey findings presented in the report and the Appendix are from the 36% of survey respondents who listed at least one county in Southwest Virginia as part of their service area.

### 4.2.4   Key Stakeholder Focus Group Design

Independent focus groups were conducted for each Ballad Health facility in order to provide specific and unique information for each community being served. The MAPP model and questions from the key stakeholder survey were used to guide the development and construction of the focus groups. Because the key stakeholder survey primarily dealt with the identification of community issues, the focus groups were primarily designed to prioritize community issues identified through the key stakeholder survey and discuss actionable items around how to best address these community issues. Questions related to root causes of community issues, the current state of resources to address community issues, needed resources to initiate improvement efforts and be successful, and community struggles related to the COVID-19 pandemic were also included in the focus group facilitation guide.

The focus groups were organized into three main components as outlined below:

- **Data Presentation:** Focus group facilitators led the focus group participants through a thorough review of the secondary data compiled for each service area and the findings from the key stakeholder survey.
- **Prioritization:** Focus group facilitators led focus group participants through the prioritization of the community issues that were identified in the key stakeholder survey for their specific community.
- **Discussion:** Focus group facilitators helped engage focus group participants in rich discussion concerning the priority focus areas identified via a structured facilitation guide.

Multiple team members from the Division of Population Health within Ballad Health attended each focus group and were assigned one of the following roles:

- **Facilitator:** Present secondary data and key stakeholder survey findings, lead focus group through prioritization process, and facilitate discussion surrounding priority focus areas identified by the focus group.
- **Notetaker:** Take detailed notes on the discussion surrounding the priority areas.
- **Chat Box Moderator:** Monitor the chat box on the WebEx platform to ensure all communications were acknowledged and addressed.

Following the conclusion of the focus group, the facilitator, notetaker, and chat box monitor collectively reviewed the notes to ensure accuracy and address any areas of confusion. Once focus group notes were finalized and approved, focus group data was coded and analyzed by primary and secondary coders who are team members of the Division of Population Health within Ballad Health.

### 4.2.4.1 Key Stakeholder Focus Group Demographics

The key stakeholder focus groups were conducted virtually via WebEx and were one hour and thirty minutes in length. For Lonesome Pine Hospital, there were fifteen (n=15) focus group participants. Similar to the key stakeholder survey representation, focus group participants represented an array of different sectors in Wise County, which included: the school system, businesses, the health care system, and more. For stakeholders who were not able to attend the focus group in real-time, blank facilitation guide templates with questions concerning the three priority areas identified by the focus group participants were sent to them immediately after the conclusion of the focus group. This allowed key stakeholders who were not able to attend the focus group in real-time to still provide input and Ballad Health to ensure the involvement of diverse stakeholders.

# 5 Identification of Key Priority Areas

Analysis of secondary data for Wise County, findings from the key stakeholder survey, and the perspectives of diverse key stakeholders led to the prioritization of community issues for Lonesome Pine Hospital as depicted in the graphic below.



**3 Priority Areas for**

**Lonesome Pine Hospital**
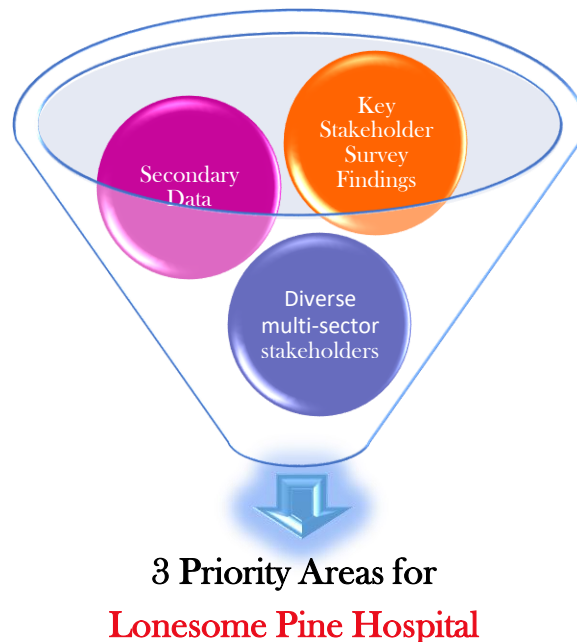
As discussed in the section concerning the design of the key stakeholder survey, three of the thirteen survey questions dealt with the identification of the most pressing community issues. The first of the three questions dealt with asking key stakeholders to frame in their own words what the top three health-related issues their community was facing. The second of the three questions was handled in the same manner as the first, except now the survey question asked key stakeholders to identify the top three social or environmental issues their community was facing. The last of the three questions sought to incorporate the voice of the community to the extent possible through asking stakeholders to identify the issues they believe residents in their community would like to see efforts prioritized around. Results of these three survey questions from respondents who work in Southwest Virginia are shown in the graphs below. The percentages on the bar graphs represent the percentage of Southwest Virginia respondents who mentioned a particular community issue or concern.

# PLEASE LIST THE THREE MOST IMPORTANT HEALTH-RELATED ISSUES THAT AFFECT THE OVERALL HEALTH OF YOUR COMMUNITY.

| Issue | Percentage |
|---|---|
| Substance Abuse | 26.3% |
| Mental Health | 23.2% |
| Access to Care | 21.6% |
| Chronic Disease | 20.1% |
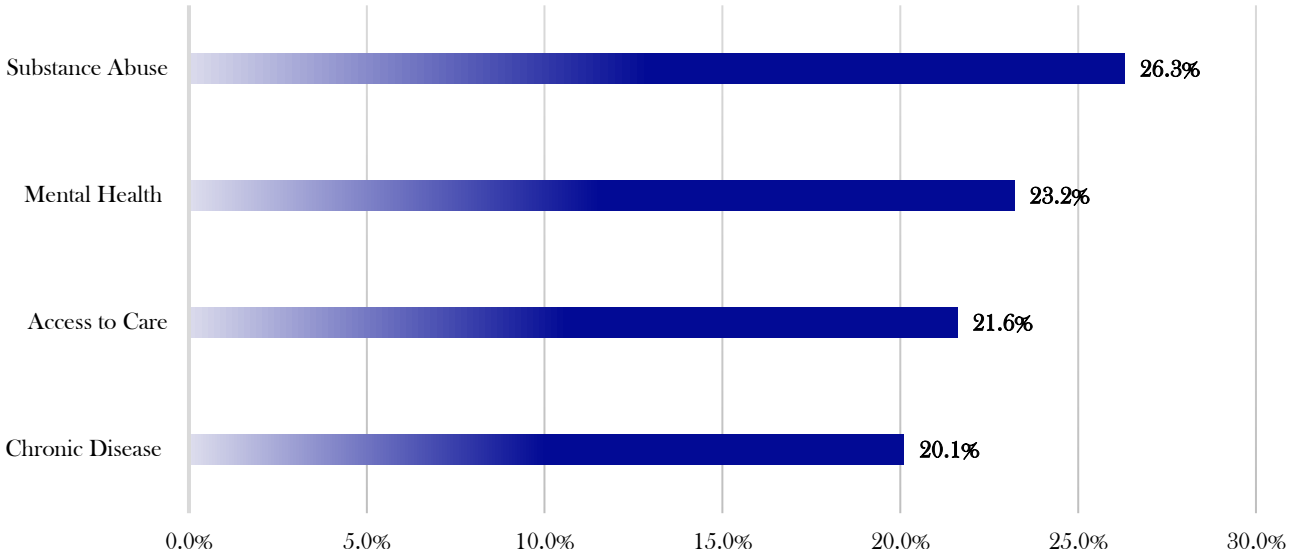
*Other health-related issues that were mentioned by respondents were physical inactivity, unintended pregnancy, COVID-19, and dental health.

# PLEASE LIST THE THREE MOST IMPORTANT SOCIAL/ENVIRONMENTAL ISSUES THAT AFFECT THE OVERALL HEALTH OF YOUR COMMUNITY.

| Issue | Percentage |
|---|---|
| Transportation | 24.3% |
| ACEs | 18.8% |
| Food Insecurity | 15.3% |
| Housing | 13.9% |
| Poverty | 4.7% |
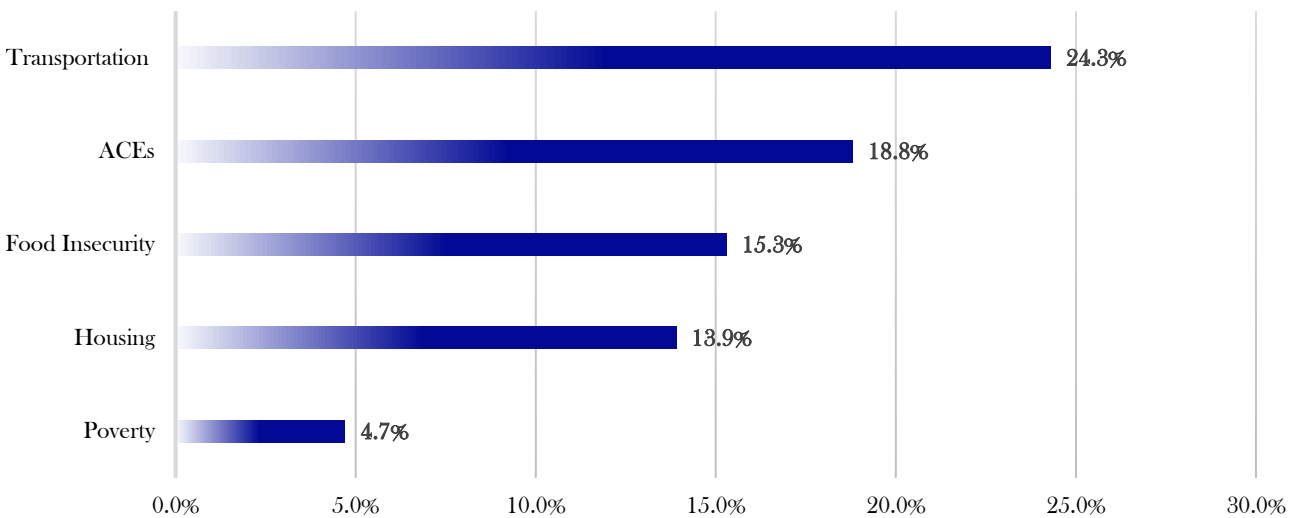
*Other social/environmental issues that were mentioned by respondents were education, discrimination, and safe water sources.

## FROM THE PERSPECTIVE OF THOSE WHO LIVE IN YOUR COMMUNITY, WHAT ISSUES DO YOU BELIEVE THE RESIDENTS WOULD LIKE TO SEE EFFORTS PRIORITIZED AROUND?
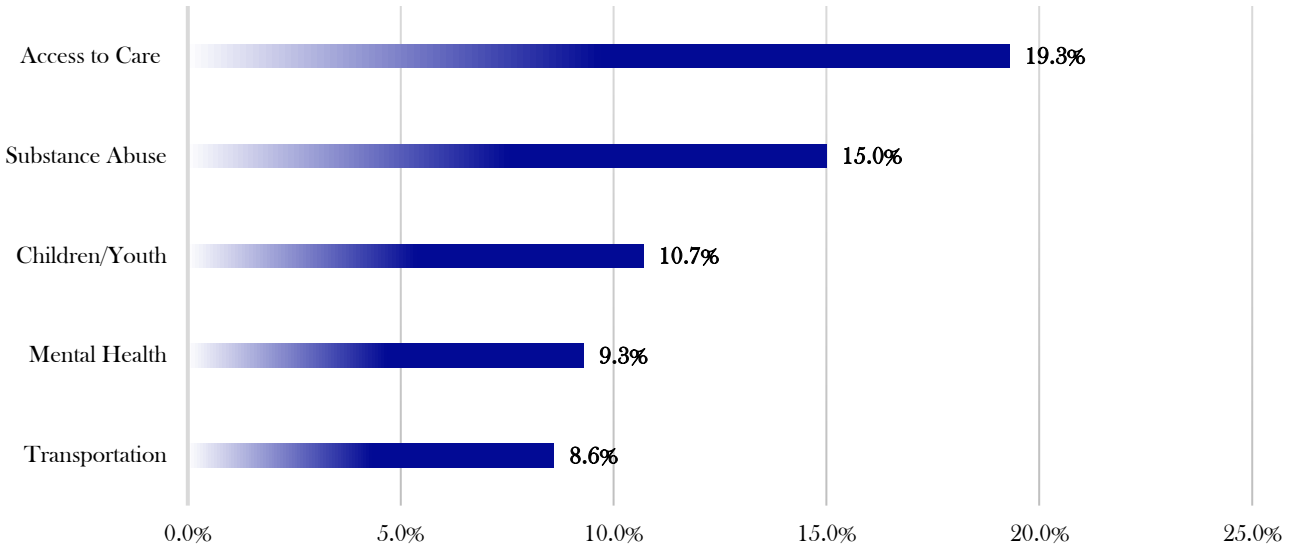


*Other community that were mentioned by respondents were employment, childcare, ACEs, and COVID-19.

From these three survey questions, the top ten community issues identified for Southwest Virginia Communities were found to be the following:
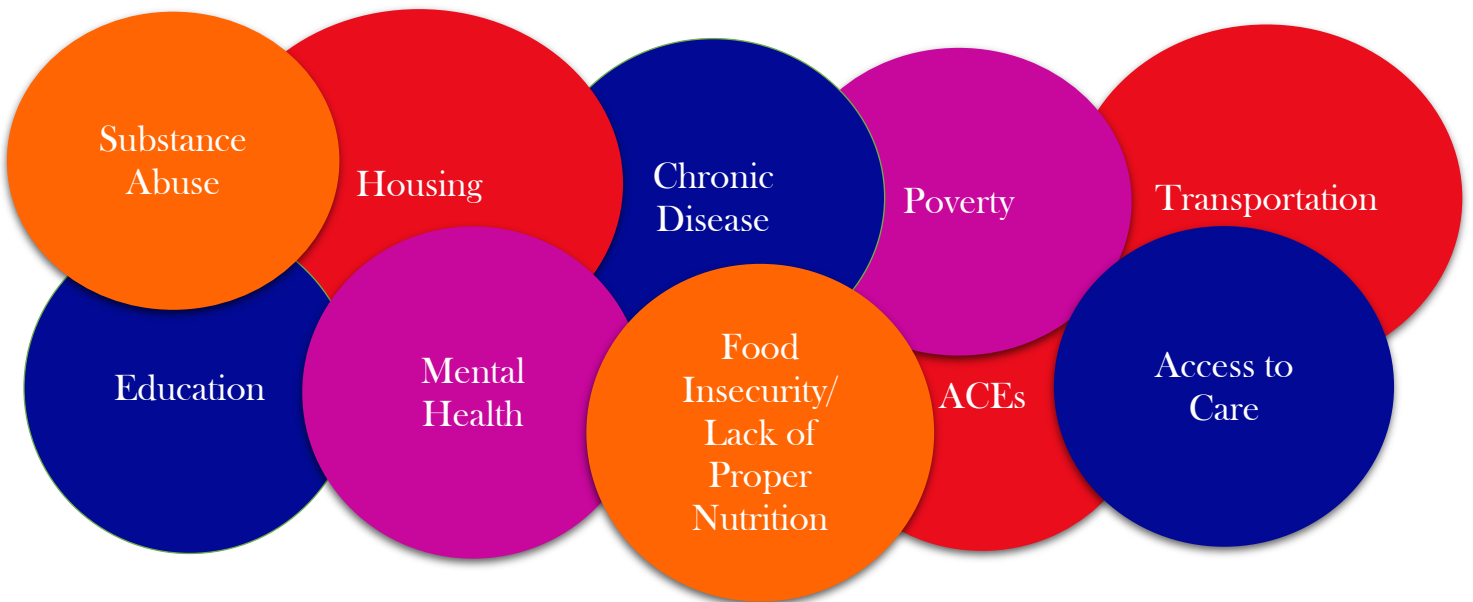
After being presented with the secondary data specific to Wise County, focus group participants were asked to vote for three of the ten community issues listed above that they felt should be priority focus areas for future improvement efforts in Wise County. The three issues that obtained the majority of the votes were the three priority areas selected and became the focus of the facilitated discussion. For Lonesome Pine Hospital, the three priority areas for future improvement efforts that were selected by key stakeholders in Wise County are **substance abuse, chronic disease, and access to care.** Table 3 below highlights some of the secondary data measures used for both gathering baseline data and measuring change for the three priority areas selected for Lonesome Pine Hospital.

| Table 3 | |
|---|---|
| **Priority Focus Area** | **Sub-Measure** |
| **Substance Abuse** | ▪ Drug Overdose Deaths<br>▪ Children with NAS<br>▪ Alcohol-Impaired Driving Deaths<br>▪ Excessive Drinking |
| **Chronic Disease** | ▪ Cardiovascular Deaths<br>▪ Cancer Deaths<br>▪ Diabetes Mellitus Deaths<br>▪ Prevalence of Diabetes |
| **Access to Care** | ▪ Primary Care Physician Ratio<br>▪ Mental Health Provider Ratio<br>▪ Dentist Ratio<br>▪ Uninsured Adults |

As evidenced by the county-level vs. state-level data represented for each of the priority measures selected by Wise County focus group participants, opportunity for improvement exists across all priority measures within the local community. Although not all metrics compare unfavorably to the overall state data, opportunity still exists, as the Virginia data is not intended as a benchmark, but merely as a comparison. In addition to state-level comparisons, priority measures for Wise County are also compared to the average of the Southwest Virginia counties in Ballad Health's GSA.

By identifying these priority areas, Lonesome Pine Hospital, in conjunction with Ballad Health and other local community organizations, can begin to implement targeted programs and efforts to improve the overall health and well-being of citizens of Wise County.

5.1    Priority Area Measures with County vs. Ballad Health GSA Average for SW VA
        Counties vs. State Comparisons (when applicable):

### 5.1.1  Substance Abuse

**DRUG OVERDOSE DEATHS**

(DRUG OVERDOSE DEATH RATE PER 100,000 RESIDENTS)

| Category | Value |
|---|---|
| WISE COUNTY | 26.3 |
| BALLAD HEALTH VA GSA AVERAGE | 17.2 |
| VIRGINIA | 15.0 |

**CHILDREN WITH NAS**

(NAS BIRTH RATE PER 1,000 BIRTH HOSPITALIZATIONS)

| Category | Value |
|---|---|
| WISE COUNTY | 98.6 |
| BALLAD HEALTH VA GSA AVERAGE | 61.7 |
| VIRGINIA | 7.6 |

**ALCOHOL-IMPAIRED DRIVING DEATHS**

(PERCENT OF DRIVING DEATHS WITH ALCOHOL INVOLVEMENT)

| Category | Value |
|---|---|
| WISE COUNTY | 15.0% |
| BALLAD HEALTH VA GSA AVERAGE | 23.1% |
| VIRGINIA | 30.0% |

**EXCESSIVE DRINKING**

(PERCENT OF ADULTS REPORTING BINGE OR HEAVY DRINKING)

| Category | Value |
|---|---|
| WISE COUNTY | 17.0% |
| BALLAD HEALTH VA GSA AVERAGE | 16.2% |
| VIRGINIA | 17.0% |

### 5.1.2  Chronic Disease

## CARDIOVASCULAR DEATHS

(RATE OF DEATHS FROM DISEASES OF THE
HEART PER 100,000 POPULATION)

| | | |
|---|---|---|
| 557.5 | 510.7 | 393.2 |
| WISE COUNTY | BALLAD HEALTH VA GSA AVERAGE | VIRGINIA |

## CANCER DEATHS

(NUMBER OF CANCER DEATHS (ALL SITES) PER
100,000 POPULATION )
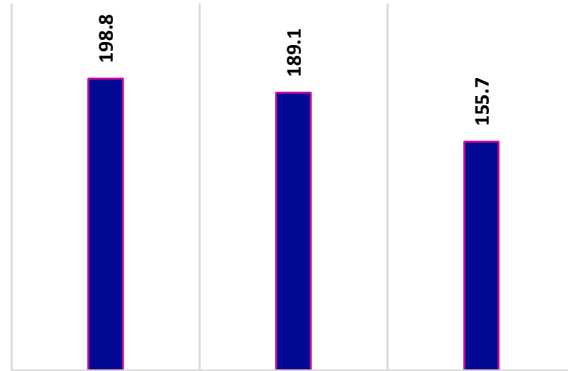
| | | |
|---|---|---|
| 198.8 | 189.1 | 155.7 |
| WISE COUNTY | BALLAD HEALTH VA GSA AVERAGE | VIRGINIA |

## DIABETES MELLITUS DEATHS

(RATE OF DEATHS FROM DIABETES PER
100,000 POPULATION)
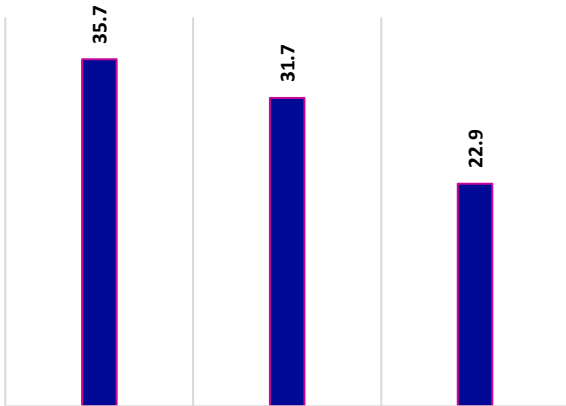
| | | |
|---|---|---|
| 35.7 | 31.7 | 22.9 |
| WISE COUNTY | BALLAD HEALTH VA GSA AVERAGE | VIRGINIA |

## DIABETES PREVALENCE

(PERCENTAGE OF ADULTS AGED 20 AND ABOVE
WITH DIAGNOSED DIABETES)
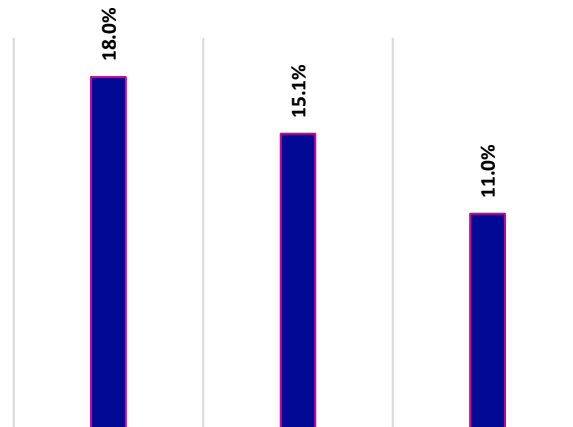
| | | |
|---|---|---|
| 18.0% | 15.1% | 11.0% |
| WISE COUNTY | BALLAD HEALTH VA GSA AVERAGE | VIRGINIA |

### 5.1.3 Access to Care

## UNINSURED ADULTS

(PERCENTAGE OF ADULTS UNDER AGE 65 WITHOUT HEALTH INSURANCE)

| | | |
|---|---|---|
| 14.0% | 13.9% | 12.0% |
| WISE COUNTY | BALLAD HEALTH VA GSA AVERAGE | VIRGINIA |
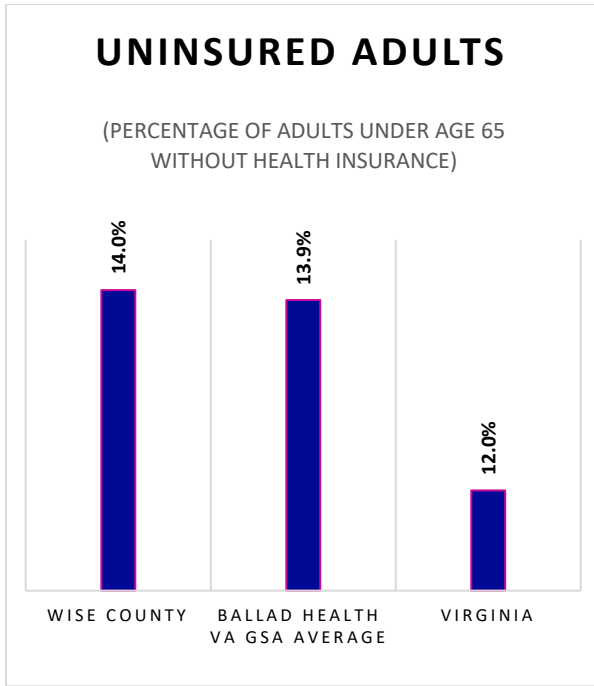
## PRIMARY CARE PHYSICIAN RATIO

(RATIO OF POPULATION TO PRIMARY CARE PHYSICIANS)

1,930:1 — WISE COUNTY
1,320:1 — VIRGINIA
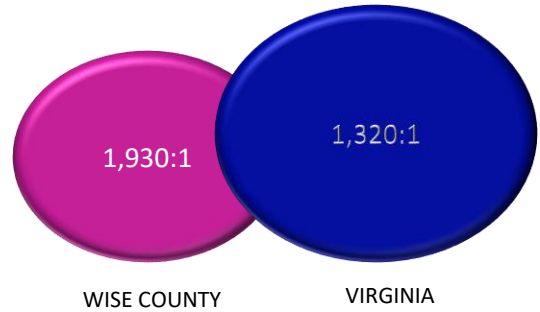
## MENTAL HEALTH PROVIDER RATIO

(RATIO OF POPULATION TO MENTAL HEALTH PROVIDERS)

970:1 — WISE COUNTY
570:1 — VIRGINIA
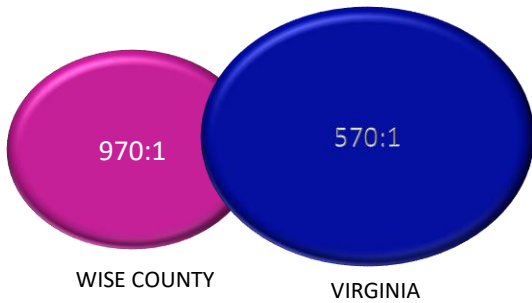
## DENTSIT RATIO

(RATIO OF POPULATION TO DENTISTS)

4,750:1 — WISE COUNTY
1,460:1 — VIRGINIA
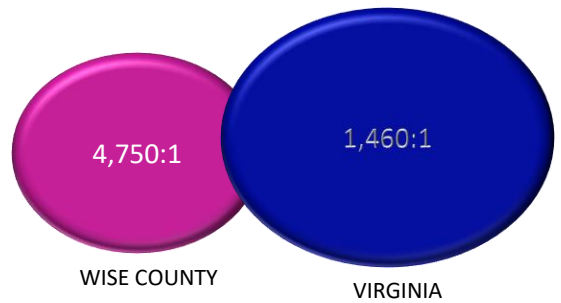
# 6    Root Causes of Key Priority Areas

Because health is more than just a result of behaviors or individual pre-disposition to disease, Ballad Health realizes that it must also evaluate social determinants such as the environment and community in which people live, the access to care they have, and the policy issues that exist/are absent in order to be able to make effective strides in improvement.  For this reason, **root causes** for each of three priority focus areas were discussed in the focus group to better understand the relationships between various community issues. Utilizing more upstream ways of thinking and better understanding the true root causes of community issues will allow Ballad Health to better understand how to design future efforts and determine which community partners are needed for a collective effort to truly bring about a measurable change.
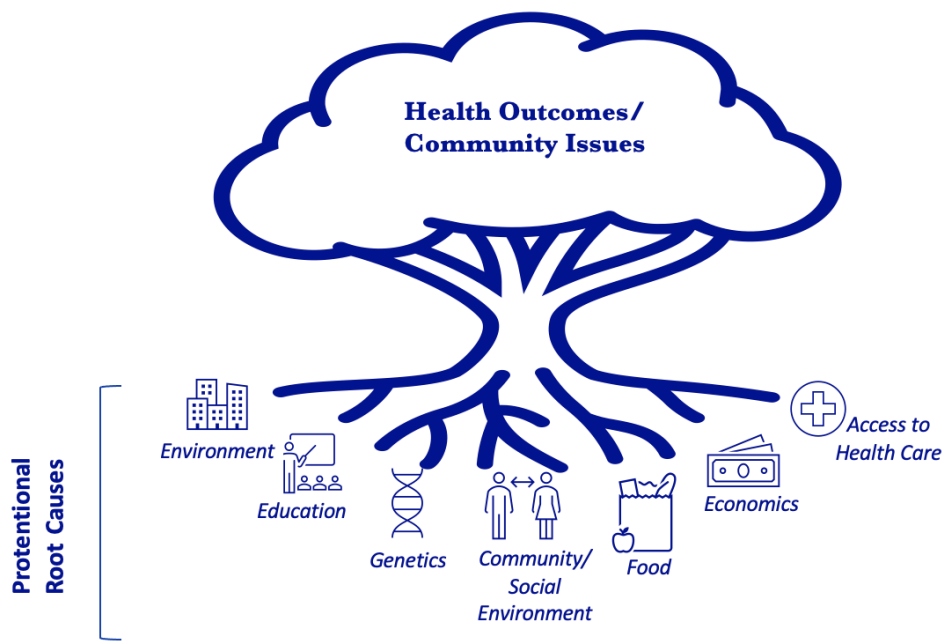
To help understand the true root causes of three priority focus areas selected for Lonesome Pine Hospital, participants in the focus group identified the causes they believe must be addressed and accounted for in future improvement efforts in order to truly make impactful progress and change. The identified root causes for the priority focus areas for Lonesome Pine Hospital include:

## 6.1    Substance Abuse:
- Poverty
- ACEs/Trauma
- Mental Health Issues
- Lack of resources
- Lack of available services

## 6.2    Chronic Disease:

- Tobacco
- Fast food
- Lack of exercise

## 6.3   Access to Care:

- Lack of primary and specialist care availability in the region
- No/very limited clinical psychologists and clinical care for adolescents available
- Physician recruitment in an impoverished area
- Poverty
- Food deserts
- Transportation
- Lack of health insurance
- Inability to pay
- Lack of education around the benefits of wellness
- Lack of dental providers
- Affordable Care Act doesn't allow certain insurances to cross state lines which is an issue

# 7   Community and Hospital Resources: Current and Needed

## 7.1   Current Resources

To help improve the identified health priorities for Wise County, focus group participants were also asked to help identify **current** programs/organizations/individuals/services from the local community that may be of assistance with the population health efforts in their county. Because multiple resources working together for the same cause can help to drive change faster, having the inventory of local resources with whom Ballad Health can partner with is key. There are many resources currently in existence in Wise County through both the hospital and local organizations. The current and available resources identified for each of the three priority focus areas in the focus groups are as follows:

### 7.1.1   Substance Abuse:
- FBO programs
- Frontier Health
- Community Coalitions that address SUD and prevention
- Appalachian Substance Abuse Coalition
- Trainings provided by CSB (ACEs, Mental Health First Aid)
- Strong and Active Recovery
- Narcan training at the health department
- Scattered Alcoholics Anonymous, Narcotics Anonymous and other similar support organizations

### 7.1.2   Chronic Disease:
- Trails
- Company Incentives

### 7.1.3   Access to Care:
- Increased telehealth due to COVID-19
- Mountain Empire Older Citizens transportation services
- Telehealth treatment, specifically for HIV and HEP C via University of Virginia
- Programs to educate and assist in application for Medicaid via Mountain Empire Older Citizens
- Health department navigators that assist with enrollment
- Health Wagon
- CAC at Mountain Empire Older Citizens provides mental health services for children with trauma history

## 7.2  Needed Resources

In addition to identifying current resources, focus group participants were also asked to identify **needed** resources that **do not** currently exist in their local community that could be of assistance with the population health efforts in their county. The identification of needed resources will help to bridge gaps and overcome barriers to care when addressing these priority focus areas. The needed resources identified for each of the three priority focus areas in the focus groups are as follows:

### 7.2.1  Substance Abuse:
- Inpatient services
- Transitional homes for those moving from inpatient care
- Inpatient services, outpatient intensive treatment, and follow-up services
- Willing organizations to take action
- More transitional and sober-living housing opportunities
- Increased community awareness, understanding, and education around substance use; de-stigmatization

### 7.2.2  Chronic Disease
- Regional Wellness Committee
- Direct payments for people to stop smoking
- Advertising for smoking cessation
- Increased awareness of existing programs
- Company incentives
- Rank restaurants by food content

### 7.2.3  Access to Care:
- Access for the unemployed or underemployed to affordable services by primary care physicians and specialists locally
- Adequate internet
- More supportive substance use programs
- Ways for individuals who need resources to be connected to them
- Affordable transportation for individuals who don't have Virginia Medicaid
- Education for patients on how to set up and attend telehealth sessions

# 8 Ideas and Suggestions for Future Improvement Efforts to Address Key Priority Areas

## 8.1 Multi-Sector Ideas and Suggestions for Improvement Efforts

Foundational to any population health improvement effort is the identification of actionable priorities. Now that this has been accomplished, the hospital can begin to formulate targeted implementation plans to help address the disparities plaguing parts of its population. By identifying these priority areas, Lonesome Pine Hospital in conjunction with Ballad Health and other local community organizations can begin to implement targeted programs and efforts to improve the overall health and well-being of citizens of Wise County. To best plan for and design improvement efforts that address the three priority focus areas, focus group participants offered ideas and suggestions for potential improvement efforts and solutions that can be incorporated into the Community Health Needs Assessment Implementation Plan for Lonesome Pine Hospital. Focus group participants were not asked to formulate entire initiatives or improvement efforts, but were instead asked to offer ideas and suggestions for crucial elements to be included in a larger, overarching improvement effort. The ideas and suggestions for potential improvement efforts for each of the three priority areas are as follows:

### 8.1.1 Substance Abuse:
- Residential rehab facilities
- Long-term services
- Inpatient treatment and services
- Use of existing facilities to have a centralized location for services (Old Mountain View/St. Mary's)
- Community awareness, understanding, and education around SUD
- K-12 Educations programs on how long-term issues lead to poverty
- Education specific to the business community
- De-stigmatization

### 8.1.2 Chronic Disease:
- Increased awareness of existing programs and development of additional prevention programs
- Creation of a specific Regional Wellness Commission

### 8.1.3 Access to Care:
- Telehealth
- Intentional focus on provider recruitment
- Incentives for specialists
- Coordination with transport and facilities
- Access point in the area for mental health services

## 8.2 Ideas and Suggestions for Improvement Efforts Specific to Ballad Health and Lonesome Pine Hospital

In addition to discussing ideas and suggestions for protentional improvement efforts, the focus group participants also discussed possibilities for how Lonesome Pine Hospital and Ballad Health can continue or enhance programs/services to provide local resources to support the identified priorities and best be a community partner in future improvement efforts. Several of the ideas and suggestions for potential improvement efforts for each of the priority areas were repeated by focus group participants again here, signifying that the participants believe Ballad Health and Lonesome Pine Hospital should either lead or be largely involved in the improvement effort. Suggestions as to how Ballad Health and Lonesome Pine Hospital can improve the previously identified priority focus areas are listed below:

### 8.2.1 Substance Abuse:
- Comprehensive programs that are seamless between assessment, inpatient services, transitional services, and outpatient services
- Trained providers/specialists
- Collaborative effort with Ballad Health across multi-sector: businesses organizations, schools
- Recruitment of more mental health professionals, more dentists, more specialists to serve the area

### 8.2.2 Chronic Disease:
- Increased understanding of the links between poverty, ACEs, un-/under-employment and chronic disease

### 8.2.3 Access to Care:
- Recruitment of providers and specialists
- Education for patients on how to set up and attend telehealth sessions
- An accessible, advertised database of existing programs and services in the area, with both in-person and telehealth options
- More services and collaborations between states
- Weekly specialty care access in Wise County for individuals traveling from the outer reaches of the Ballad Footprint
- Use of physical spaces for coworking

# 9  COVID-19 Pandemic

Ballad Health fully understands the toll the COVID-19 Pandemic had on our communities and health care system. In both the key stakeholder survey and key stakeholder focus groups, Ballad Health wanted to reflect and better understand how communities have struggled in light of the pandemic through understanding what types of services and assistance were needed most by communities. This information obtained by the community will allow Ballad Health to best plan for barriers to future improvement efforts, as communities are still suffering from the effects of the pandemic. From the key stakeholder survey, the types of assistance needed most by communities due to COVID-19 are shown below. The percentages on the bar graphs represent the percentage of Southwest Virginia respondents who selected that particular type of assistance.

## AS A RESULT OF COVID-19, WHICH OF THE FOLLOWING SERVICES OR TYPES OF ASSISTANCE HAVE BEEN NEEDED MOST BY THE THOSE WITHIN YOUR COMMUNITY? (PLEASE SELECT YOUR TOP 3)



| Type of Assistance | Percentage |
|---|---|
| Food Assistance | 58.5% |
| Mental Health Assistance | 56.9% |
| Financial Assistance | 55.4% |
| WiFi/Internet Assistance | 46.2% |
| Childcare Assistance | 35.4% |
| Education Assistance for Children in School | 33.9% |
| Housing/Shelter Assistance | 29.2% |
| Rental Assistance | 15.4% |
| Other | 13.9% |
| Translation/Interpretation Assistance | 1.6% |
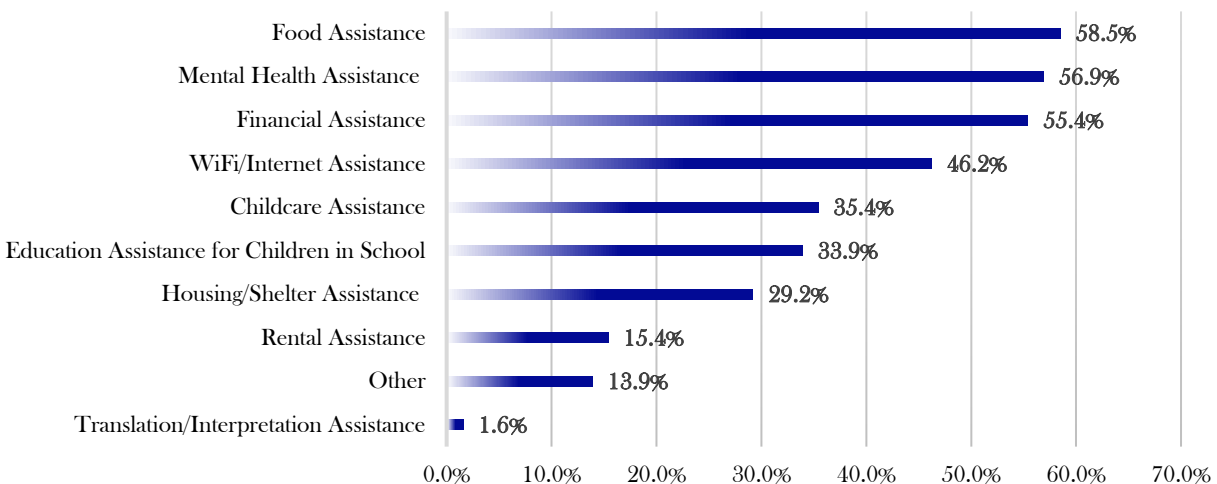
In the key stakeholder focus groups, participants were asked to detail how they felt the COVID-19 pandemic would affect the community's ability to address any of the three priority areas. Focus group participants mentioned the following negative consequences:

- Limitations on availability of beds
- Limits on waiting areas in medical offices
- Lack of in-person service availability
- Toll on the medical and other services providers that limits the ability to add additional duties to current providers.
- Stop on all capital purchases due to COVID-19 budget adjustments
- Social isolation in an already remote areas creates additional challenges
- Loss of income
- Loss of routine care among the population

- Increases in poverty
- Disruptions in services from community organizations has led to less communication/collaboration between organizations
- Wide-ranging viewpoints in our communities on COVID-19 and its impacts are a major barrier
- COVID is a deterrent for people seeking medical care except for emergencies
- Children's lives have been deeply impacted and ACEs are the root cause of many health- and mental health-related issues

The focus group participants also mentioned some positive outcomes from the pandemic.
- COVID-19 has created more telehealth options in this rural region (this had to happen eventually, but COVID-19 pushed the health system into a quicker change, which has been a noted positive)
- COVID-19 has provided a way for more virtual collaboration and exchange of experience, knowledge, and networking

In future efforts to address each of the priority areas, focus group participants believe special attention to the above list of negative consequences should be given as a result of the pandemic.

# 10 Conclusion

As hospitals and health systems continue to work to make the communities they serve healthier, the identification of prioritized population health issues has become an area of strategic importance. Because Lonesome Pine Hospital is located in a region with many health and social challenges, that prioritization becomes even more important so that focused actions can be developed and implemented with strategic purpose. The allocation of hospital resources to the prioritized issues, coupled with partnerships with other community organizations, will continue to build momentum toward the building of a healthier Wise County.

# 11 Appendix

## 11.1 Sg2 2021 Population Profile

The table below highlights key demographic statistics for Wise County, VA:

**Sg2 MARKET SNAPSHOT**

Market Snapshot
Wise County, VA

| Population and Gender | Market 2021 Population | Market 2021 % of Total | Market 2026 Population | Market 2026 % of Total | Market Population % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| Female Population | 21,364 | 48.38% | 20,823 | 48.42% | (2.53 %) | 50.75% |
| Male Population | 22,794 | 51.62% | 22,179 | 51.58% | (2.70 %) | 49.25% |
| Total | 44,158 | 100.00 % | 43,002 | 100.00 % | (2.62 %) | 100.00 % |

| Age Groups | Market 2021 Population | Market 2021 % of Total | Market 2026 Population | Market 2026 % of Total | Market Population % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| 00-17 | 8,571 | 19.41% | 8,123 | 18.89% | (5.23 %) | 22.17% |
| 18-44 | 15,280 | 34.60% | 14,655 | 34.08% | (4.09 %) | 35.64% |
| 45-64 | 11,667 | 26.42% | 10,830 | 25.18% | (7.17 %) | 25.13% |
| 65-UP | 8,640 | 19.57% | 9,394 | 21.85% | 8.73% | 17.06% |
| Total | 44,158 | 100.00 % | 43,002 | 100.00 % | (2.62 %) | 100.00 % |

| Ethnicity/Race | Market 2021 Population | Market 2021 % of Total | Market 2026 Population | Market 2026 % of Total | Market Population % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| Asian & Pacific Is. Non-Hispanic | 254 | 0.58% | 281 | 0.65% | 10.63% | 6.05% |
| Black Non-Hispanic | 2,347 | 5.32% | 2,378 | 5.53% | 1.32% | 12.40% |
| Hispanic | 811 | 1.84% | 927 | 2.16% | 14.30% | 19.24% |
| White Non-Hispanic | 40,052 | 90.70% | 38,651 | 89.88% | (3.50 %) | 58.97% |
| All Others | 694 | 1.57% | 765 | 1.78% | 10.23% | 3.34% |
| Total | 44,158 | 100.00 % | 43,002 | 100.00 % | (2.62 %) | 100.00 % |

| Language* | Market 2021 Population | Market 2021 % of Total | Market 2026 Population | Market 2026 % of Total | Market Population % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| French at Home | 197 | 0.47% | 192 | 0.47% | (2.54 %) | 0.75% |
| Korean at Home | 227 | 0.54% | 218 | 0.53% | (3.96 %) | 0.56% |
| Only English at Home | 40,247 | 96.03% | 39,221 | 96.02% | (2.55 %) | 76.50% |
| Other Indo-European Lang at Home | 90 | 0.21% | 88 | 0.22% | (2.22 %) | 1.83% |
| Spanish at Home | 851 | 2.03% | 829 | 2.03% | (2.59 %) | 14.95% |
| All Others | 300 | 0.72% | 299 | 0.73% | (0.33 %) | 5.41% |
| Total | 41,912 | 100.00 % | 40,847 | 100.00 % | (2.54 %) | 100.00 % |

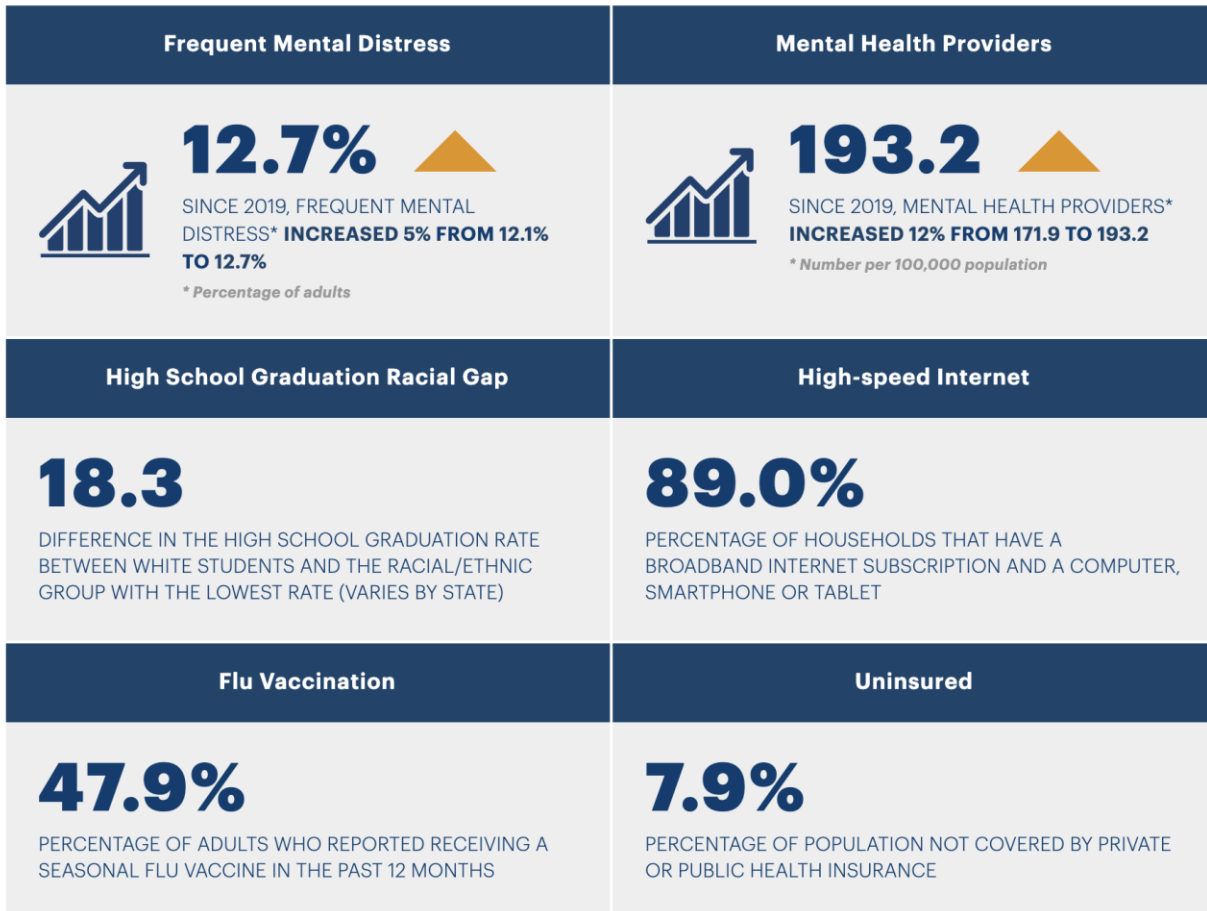| Household Income | Market 2021 Households | Market 2021 % of Total | Market 2026 Households | Market 2026 % of Total | Market Households % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| <$15K | 3,588 | 20.56% | 3,425 | 20.08% | (4.54 %) | 9.67% |
| $15-25K | 2,438 | 13.97% | 2,357 | 13.82% | (3.32 %) | 8.29% |
| $25-50K | 4,578 | 26.23% | 4,444 | 26.05% | (2.93 %) | 20.27% |
| $50-75K | 3,026 | 17.34% | 2,954 | 17.32% | (2.38 %) | 16.57% |
| $75-100K | 1,529 | 8.76% | 1,533 | 8.99% | 0.26% | 12.46% |
| $100K-200K | 1,914 | 10.97% | 1,949 | 11.43% | 1.83% | 23.23% |
| >$200K | 379 | 2.17% | 395 | 2.32% | 4.22% | 9.51% |
| Total | 17,452 | 100.00 % | 17,057 | 100.00 % | (2.26 %) | 100.00 % |

| Education Level** | Market 2021 Population | Market 2021 % of Total | Market 2026 Population | Market 2026 % of Total | Market Population % Change | National 2021 % of Total |
|---|---|---|---|---|---|---|
| Less than High School | 2,924 | 9.28% | 2,869 | 9.31% | (1.88 %) | 5.05% |
| Some High School | 4,703 | 14.92% | 4,637 | 15.05% | (1.40 %) | 6.83% |
| High School Degree | 9,673 | 30.69% | 9,473 | 30.74% | (2.07 %) | 26.95% |
| Some College/Assoc. Degree | 9,963 | 31.61% | 9,742 | 31.61% | (2.22 %) | 31.05% |
| Bachelor's Degree or Greater | 4,252 | 13.49% | 4,095 | 13.29% | (3.69 %) | 30.12% |
| Total | 31,515 | 100.00 % | 30,816 | 100.00 % | (2.22 %) | 100.00 % |

*Excludes population age<5, **Excludes population age<25

## 11.2 America's Health Rankings Graphic

The infographic below summarizes strength and challenges for the state of Virginia in 2020:

| Frequent Mental Distress | Mental Health Providers |
|---|---|
| **12.7%** ▲ SINCE 2019, FREQUENT MENTAL DISTRESS* **INCREASED 5% FROM 12.1% TO 12.7%** *Percentage of adults* | **193.2** ▲ SINCE 2019, MENTAL HEALTH PROVIDERS* **INCREASED 12% FROM 171.9 TO 193.2** *Number per 100,000 population* |
| **High School Graduation Racial Gap** | **High-speed Internet** |
| **18.3** DIFFERENCE IN THE HIGH SCHOOL GRADUATION RATE BETWEEN WHITE STUDENTS AND THE RACIAL/ETHNIC GROUP WITH THE LOWEST RATE (VARIES BY STATE) | **89.0%** PERCENTAGE OF HOUSEHOLDS THAT HAVE A BROADBAND INTERNET SUBSCRIPTION AND A COMPUTER, SMARTPHONE OR TABLET |
| **Flu Vaccination** | **Uninsured** |
| **47.9%** PERCENTAGE OF ADULTS WHO REPORTED RECEIVING A SEASONAL FLU VACCINE IN THE PAST 12 MONTHS | **7.9%** PERCENTAGE OF POPULATION NOT COVERED BY PRIVATE OR PUBLIC HEALTH INSURANCE |

## 11.3  County Health Rankings Graphic

The infographic below shows the 2021 rankings for Wise County for each of the County Health Ranking model components out of the 133 Virginia counties/cities.
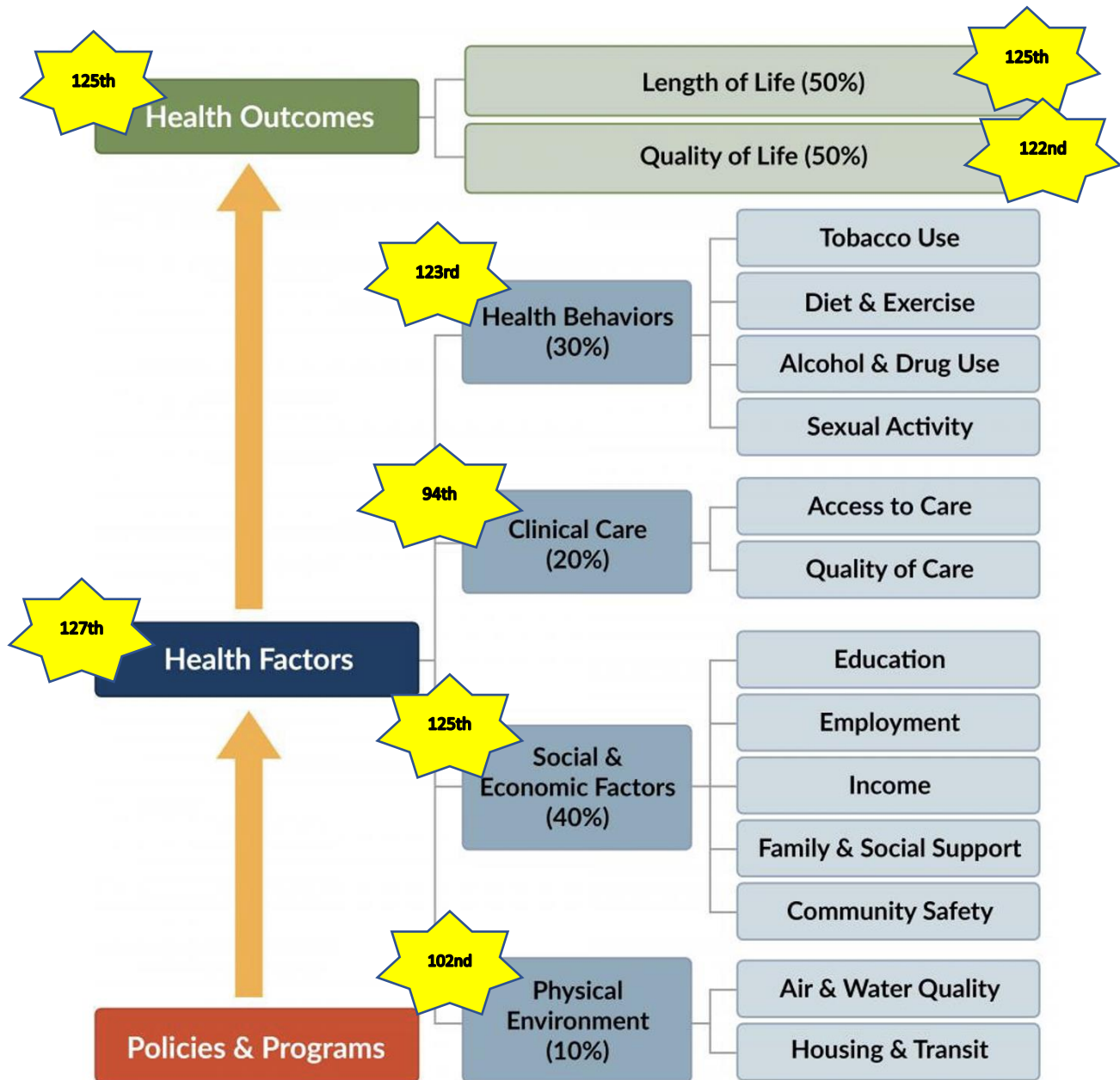


County Health Rankings model © 2014 UWPHI

## 11.4 Secondary Data Tables

The seven data tables below showcase the secondary data metrics compiled for Wise County, VA. Metric definitions, the associated metric value for Virginia, and data source reference are also included in the tables.

| | Health Outcomes | | | | | |
|---|---|---|---|---|---|---|
| Metric | Metric Definition | Wise County | Ballad Health GSA Average | Ballad Health VA GSA Average | Virginia | Reference |
| Infant Mortality | Number of infant deaths (under one year of age) per 1,000 live births | 11.1 | 6.9 | 6.8 | 5.6 | Kids Count |
| Low Birthweight | Percentage of live born infants with birth weight less than 5 pounds, 8 ounces | 12.8% | 9.3% | 8.8% | 8.2% | Kids Count |
| Children with NAS | NAS birth rate per 1,000 birth hospitalizations | 98.6 | 64.4 | 61.7 | 7.6 | Virginia Department of Health |
| Poor or Fair Health | Percentage of adults reporting fair or poor health (age-adjusted) | 20.0% | 18.7% | 18.5% | 16.0% | County Health Rankings |
| Cardiovascular Deaths | Rate of deaths from diseases of the heart per 100,000 population | 557.5 | 527.8 | 510.7 | 393.2 | CDC |
| Cancer Deaths | Number of cancer deaths (all sites) per 100,000 population | 198.8 | 192.7 | 189.1 | 155.7 | CDC |
| Diabetes Mellitus Deaths | Rate of deaths from diabetes per 100,000 population | 35.7 | 32.4 | 31.7 | 22.9 | World Life Expectancy |
| Cerebrovascular Deaths | Rate of deaths from cerebrovascular disease per 100,000 population | 75.2 | 73.2 | 74.0 | 74.1 | CDC |
| Suicide Rate | Number of deaths due to suicide per 100,000 population | 22.0 | 22.5 | 21.5 | 13.0 | County Health Rankings |
| Lung Cancer Deaths | Number of lung and bronchus cancer deaths per 100,000 population | 69.7 | 57.8 | 55.7 | 38.8 | CDC |
| Female Breast Cancer Deaths | Number of female breast cancer deaths per 100,000 women | 23.7 | 21.7 | 21.7 | 21.5 | CDC |
| Prevalence of Diabetes | Percentage of adults aged 20 and above with diagnosed diabetes | 18.0% | 15.2% | 15.1% | 11.0% | County Health Rankings |
| Mammography Screening | Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening | 43.0% | 40.1% | 40.4% | 44.0% | County Health Rankings |
| Frequent Mental Distress | Percentage of adults reporting 14 or more days of poor mental health per month | 14.0% | 13.8% | 13.6% | 12.0% | County Health Rankings |
| Premature Deaths | Number of deaths among residents under age 75 per 100,000 population (age-adjusted) | 580.0 | 526.4 | 512.7 | 320.0 | County Health Rankings |

| Health Behaviors | | | | | | |
|---|---|---|---|---|---|---|
| **Metric** | **Metric Definition** | **Wise County** | **Ballad Health GSA Average** | **Ballad Health VA GSA Average** | **Virginia** | **Reference** |
| **Alcohol-Impaired Driving Deaths** | Percentage of driving deaths with alcohol involvement | 15.0% | 22.0% | 23.1% | 30.0% | County Health Rankings |
| **Excessive Drinking** | Percentage of adults reporting binge or heavy drinking | 17.0% | 16.4% | 16.2% | 17.0% | County Health Rankings |
| **Adult Smoking** | Percentage of adults who are current smokers | 19.0% | 19.0% | 19.3% | 16.0% | County Health Rankings |
| **Adult Obesity** | Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2 | 35.0% | 33.6% | 33.9% | 30.0% | County Health Rankings |
| **Overweight or Obese Youth** | Percentage of youth 10-17 years old who are classified as overweight or obese | Data not available at county level | | | 31.0% | Kids Count |
| **Access to Exercise Opportunities** | Percentage of population with adequate access to locations for physical activity. | 71.0% | 60.3% | 58.3% | 82.0% | County Health Rankings |
| **Physical Inactivity** | Percentage of adults age 20 and over reporting no leisure-time physical activity | 34.0% | 33.3% | 32.5% | 23.0% | County Health Rankings |
| **Teen Births** | Number of live births to females 17 years of age or younger per 1,000 females | 10.4 | 8.9 | 8.4 | 5.7 | Kids Count |
| **Drug Overdose Deaths** | All drug overdose death rate per 100,000 residents | 26.3 | 14.9 | 17.2 | 15.0 | Virginia Department of Health |
| **Violent Crime** | Number of reported violent crime offenses per 100,000 population | 214.0 | 162.9 | 166.6 | 207.0 | County Health Rankings |
| **Firearm Fatalities** | Number of deaths due to firearms per 100,000 population | 19.0 | 17.6 | 18.6 | 12.0 | County Health Rankings |
| **Motor Vehicle Crash Deaths** | Number of motor vehicle crash deaths per 100,000 population | 11.0 | 14.5 | 16.2 | 10.0 | County Health Rankings |

| Health Determinants | | | | | | |
|---|---|---|---|---|---|---|
| **Metric** | **Metric Definition** | **Wise County** | **Ballad Health GSA Average** | **Ballad Health VA GSA Average** | **Virginia** | **Reference** |
| **Uninsured Adults** | Percentage of adults under age 65 without health insurance | 14.0% | 13.6% | 13.9% | 12.0% | County Health Rankings |
| **Uninsured Children** | Percentage of children under 19 years of age without health insurance | 4.8% | 5.3% | 5.5% | 5.0% | Kids Count |
| **Median Household Income** | The income where half of households in a county earn more and half of households earn less | $38,000 | $40,863 | $39,236 | $72,600 | County Health Rankings |
| **Children Eligible for Free or Reduced Lunch** | Percentage of public school students in grades K-12 who were approved for free or reduced-price school lunches according to federal guidelines | 59.3% | 56.8% | 58.9% | 41.8% | Kids Count |
| **Children in Single-Parent Household** | Percentage of children living with only one parent | 41.4% | 34.8% | 35.2% | 31.3% | Kids Count |
| **Children In Poverty** | Percentage of children ages 0-17 living at or below 100% of the Federal Poverty Level | 28.7% | 25.3% | 26.1% | 13.3% | Kids Count |
| **Some College** | Percentage of adults ages 25-44 with some post-secondary education | 56.0% | 55.1% | 52.8% | 71.0% | County Health Rankings |
| **On-Time High School Graduation** | Percentage of students in a cohort who earned a Board of Education approved diploma within four years of entering high school for the first time | 97.7% | 94.4% | 94.4% | 92.5% | Kids Count |
| **Unemployment** | Percentage of population ages 16 and older unemployed but seeking work | 5.0% | 4.0% | 4.2% | 3.0% | County Health Rankings |
| **Food Insecurity** | Percentage of population who lack adequate access to food | 14.0% | 11.9% | 12.4% | 10.0% | County Health Rankings |
| **Passage Rate for Third Grade Reading Subject Standards of Learning** | Percent of students who passed the Standards of Learning (SOL) assessment in reading | 88.0% | 80.4% | 79.2% | 71.0% | Kids Count |
| **Kindergarten Readiness** | Percent of students not meeting all Virginia Kindergarten Readiness Program benchmarks including: self-regulation, social skills, math, and PALS | 8.0% | 5.0% | 5.0% | 5.3% | Kids Count |

## Physical Environment

| Metric | Metric Definition | Wise County | Ballad Health GSA Average | Ballad Health VA GSA Average | Virginia | Reference |
|---|---|---|---|---|---|---|
| Severe Housing Problems | Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities | 13.0% | 11.6% | 12.2% | 15.0% | County Health Rankings |
| Median Home Sale Price | The home sale price where half of homes in a county sell for more and half of homes sell for less | $115,000 | $132,548 | $124,359 | $319,902 | Virginia Relators |
| Air Pollution - particulate matter | Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) | 9.6 | 9.375 | 9.3 | 8.9 | County Health Rankings |

## Clinical Care and Health Resources

| Metric | Metric Definition | Wise County | Ballad Health GSA Average | Ballad Health VA GSA Average | Virginia | Reference |
|---|---|---|---|---|---|---|
| Hospital Staffed Beds | Total number of hospital staffed beds available (in the Ballad Health system for county data) | 91 | | | 18,743 | Open Data DC |
| Licensed Beds | Total number of licensed beds available (in the Ballad Health system for county data) | 248 | | | 21,842 | Open Data DC |
| Primary Care Physicians | Ratio of population to primary care physicians | 1,930:1 | | | 1,320:1 | County Health Rankings |
| Mental Health Providers | Ratio of population to mental health providers | 970:1 | | | 570:1 | County Health Rankings |
| Dentists | Ratio of population to dentists | 4,750:1 | | | 1,460:1 | County Health Rankings |
| Preventable Hospital Stays | Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees | 5,022 | 5,829 | 6,043 | 4,461 | County Health Rankings |
| Flu Vaccinations | Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination | 44.0% | 43.8% | 42.1% | 50.0% | County Health Rankings |
| Children on SNAP | Percentage of children who receive SNAP out of the total number of individuals (all ages) who receive SNAP | 35.4% | 34.8% | 34.2% | 42.3% | Kids Count |

## Maternal Infant Health

| Metric | Metric Definition | Wise County | Ballad Health GSA Average | Ballad Health VA GSA Average | Virginia | Reference |
|---|---|---|---|---|---|---|
| **Birth Rate** | Number of births per 1,000 women ages 15-44 | **63.0** | **58.8** | **58.3** | **61.1** | March of Dimes |
| **Prenatal Care Beginning in First Trimester** | Percent of women seeing a health care provider during the first thirteen weeks of pregnancy | **44.8%** | **41.0%** | **48.8%** | **78.4%** | Kids Count |
| **Mothers Who Smoke During Pregnancy** | Percent of births to mothers who smoked during pregnancy | **Data not available at county level** | | | **5.0%** | Kids Count |

## Adverse Childhood Experiences

| Metric | Metric Definition | Wise County | Ballad Health GSA Average | Ballad Health VA GSA Average | Virginia | Reference |
|---|---|---|---|---|---|---|
| **Founded Child Abuse/Neglect Cases** | Number children with founded child abuse or neglect cases | **78.0** | | **61.7** | **6413.0** | Kids Count |
| **Foster Care Entry** | Rate of children who entered into foster care for at least one day during the state fiscal year per 1,000 children | **5.4** | **4.4** | **5.0** | **1.4** | Kids Count |

## 11.5  Survey Question Data

The first two questions (Q1 and Q2) on the key stakeholder survey were used to identify the service area of the respondent and determine what organization they were representing. Findings from questions three through thirteen (Q1 – Q13) are given below:

## Q3) WHEN THINKING OF THE HEALTH OF YOUR COMMUNITY, WHAT VULNERABLE POPULATIONS DO YOU THINK DESERVE OUR PARTICULAR ATTENTION?
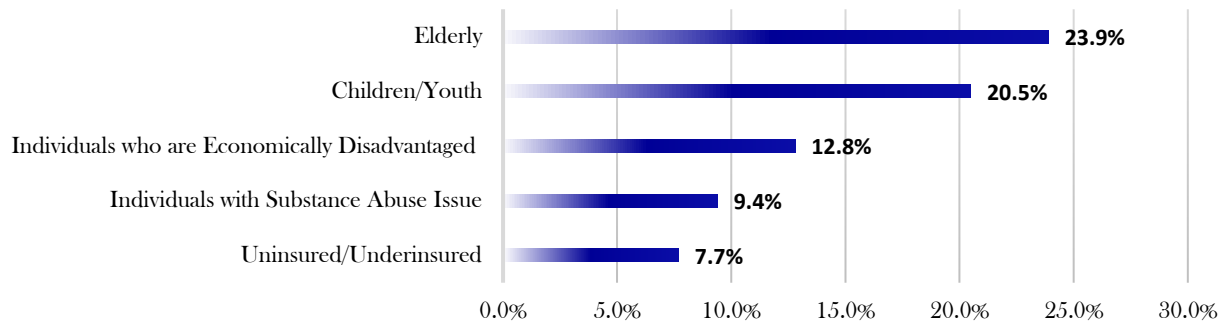


*Other vulnerable populations that were mentioned by respondents were homeless individuals, veterans, maternal women, and marginalized populations.

Below are some of the specifics given by survey respondents for each of the vulnerable populations listed above:
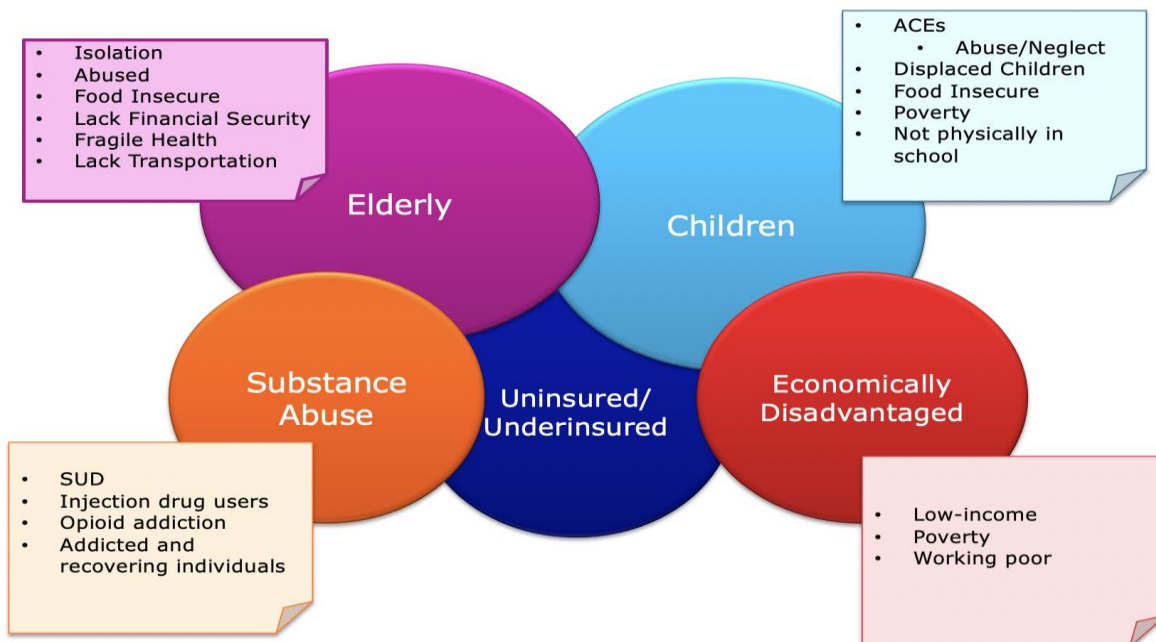
## Q4) PLEASE LIST THE THREE MOST IMPORTANT HEALTH-RELATED ISSUES THAT AFFECT THE OVERALL HEALTH OF YOUR COMMUNITY.

Substance Abuse — 26.3%
Mental Health — 23.2%
Access to Care — 21.6%
Chronic Disease — 20.1%
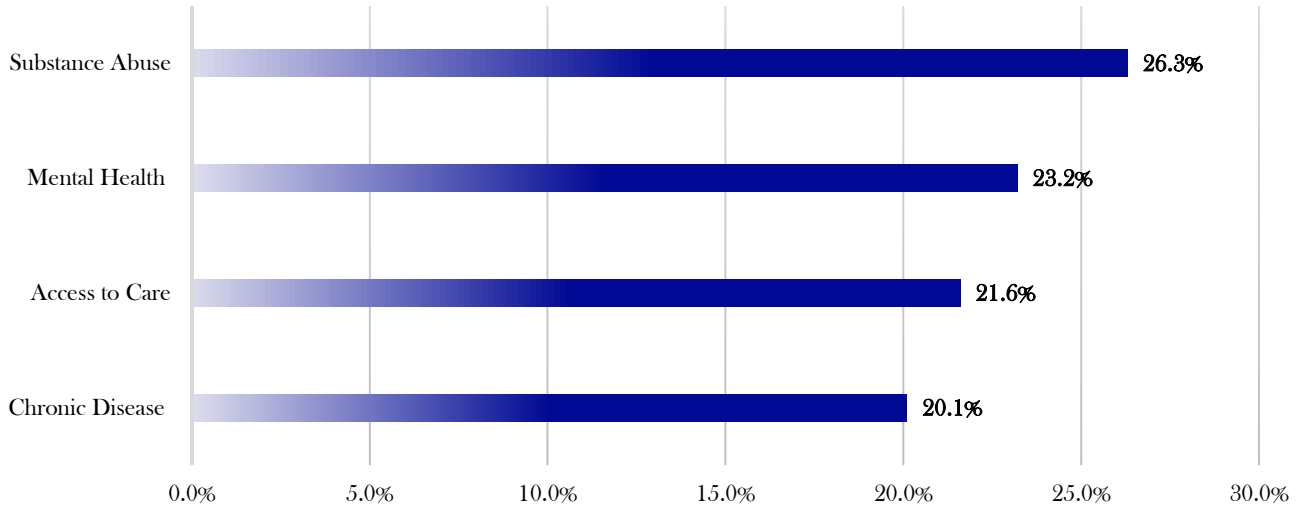
*Other health-related issues that were mentioned by respondents were physical inactivity, unintended pregnancy, COVID-19, and dental health.

## Q6) PLEASE LIST THE THREE MOST IMPORTANT SOCIAL/ENVIRONMENTAL ISSUES THAT AFFECT THE OVERALL HEALTH OF YOUR COMMUNITY.

Transportation — 24.3%
ACEs — 18.8%
Food Insecurity — 15.3%
Housing — 13.9%
Poverty — 4.7%
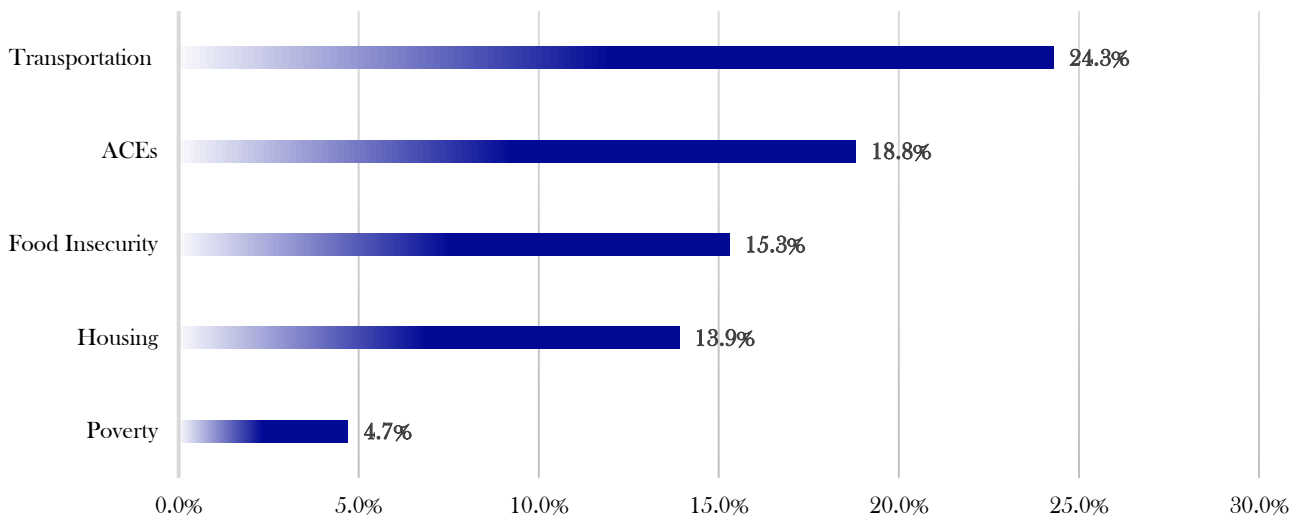
*Other social/environmental issues that were mentioned by respondents were education, discrimination, and safe water sources.

# Q5 and Q7) PLEASE ELABORATE ON WHY YOU SELECTED THOSE THREE HEALTH-RELATED AND SOCIAL/ENVIRONMENTAL ISSUES TO BE THE MOST IMPORTANT.

Three overarching themes were identified:



Secondary data for my community shows the issues I selected are important

My personal experience working with the community lead me to select those issues to be the most important

I believe the issues I selected are root causes for several other issues my community is facing

## Q8)BASED ON YOUR ANSWERS TO BOTH QUESTION 4 AND QUESTION 6, WHICH DO YOU FEEL HAS A GREATER EFFECT ON THE OVERALL HEALTH OF YOUR COMMUNITY?
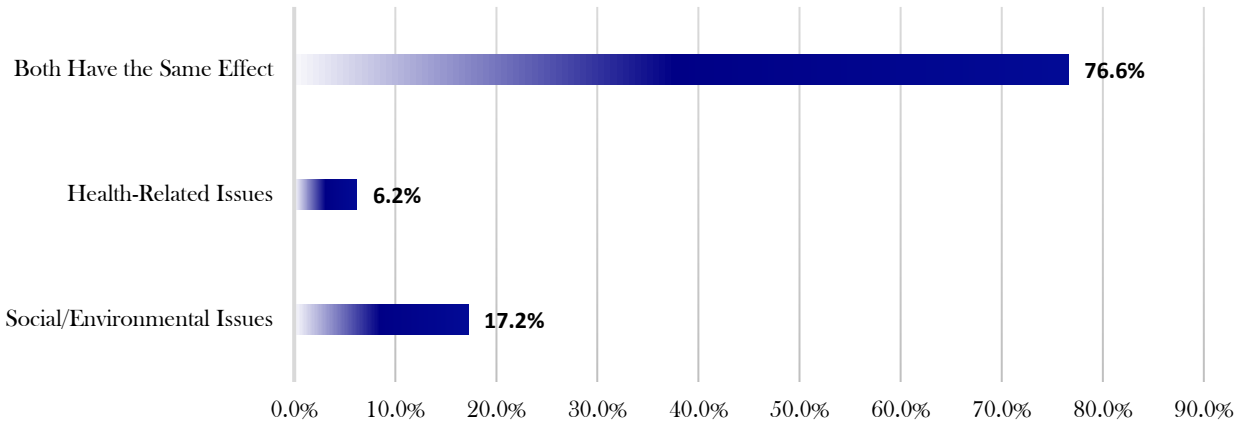
| Category | Percentage |
|---|---|
| Both Have the Same Effect | 76.6% |
| Health-Related Issues | 6.2% |
| Social/Environmental Issues | 17.2% |

## Q9) FROM THE PERSPECTIVE OF THOSE WHO LIVE IN YOUR COMMUNITY, WHAT ISSUES DO YOU BELIEVE THE RESIDENTS WOULD LIKE TO SEE EFFORTS PRIORITIZED AROUND?

| Category | Percentage |
|---|---|
| Access to Care | 19.3% |
| Substance Abuse | 15.0% |
| Children/Youth | 10.7% |
| Mental Health | 9.3% |
| Transportation | 8.6% |
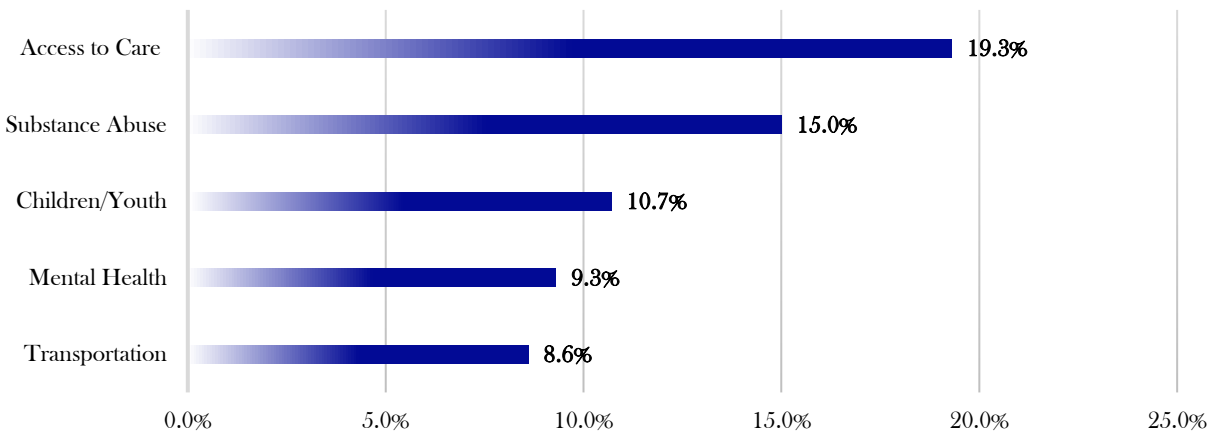
*Other community concerns that were mentioned by respondents were education, housing, ACEs, COVID-19, and food insecurity.

# Q10) WHAT IDEAS OR SUGGESTIONS DO YOU HAVE TO IMPROVE THE OVERALL HEALTH OF YOUR COMMUNITY?

Four overarching themes were identified:



- More communication between sectors in community
- Continued work with Accountable Care Community

Collaboration/Partnership

- Increased number of accessible mental health services offered
- Increased number of accessible recovery resources
- Extend services to rural areas

Increased Availability and Accessibility of Services Offered

Funding

- Increased funding for population health initiatives
- Increased funding for initiatives geared towards vulnerable populations

Education and Outreach

- Increase community awareness of services and resources available
- Education efforts for the community on various preventative measures geared towards bettering the overall health of the community
- Reaching out to underrepresented members of the community to be sure their voice is heard

# Q11) BASED ON THE PRIORITIES IDENTIFIED IN PREVIOUS COMMUNITY ASSESSMENTS, DO YOU FEEL AS THOUGH THINGS HAVE IMPROVED, STAYED THE SAME, OR WORSENED?

| Category | Percentage |
|---|---|
| Do Not Know | 21.5% |
| Worsened | 49.2% |
| Stayed the Same | 16.9% |
| Improved | 12.3% |
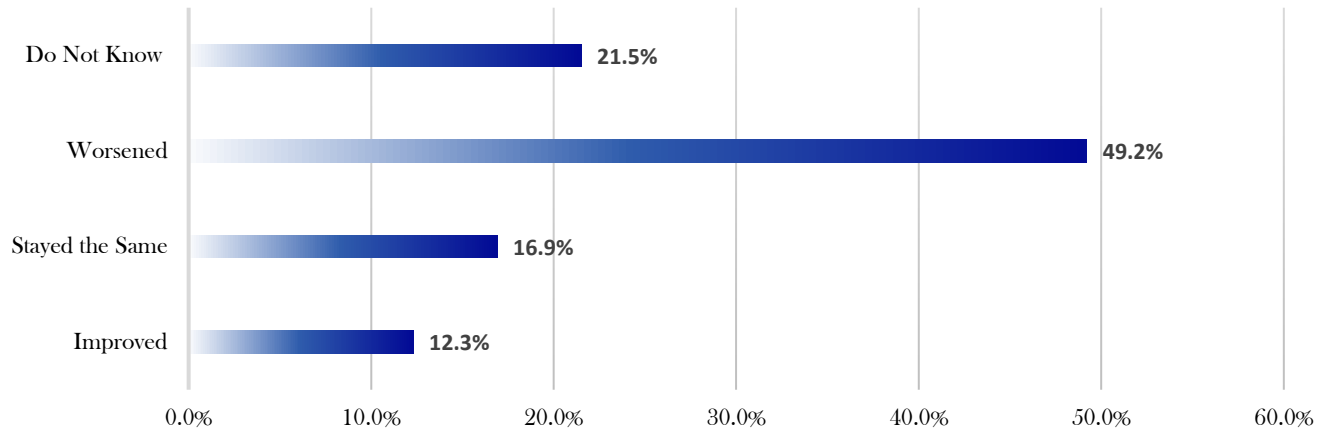
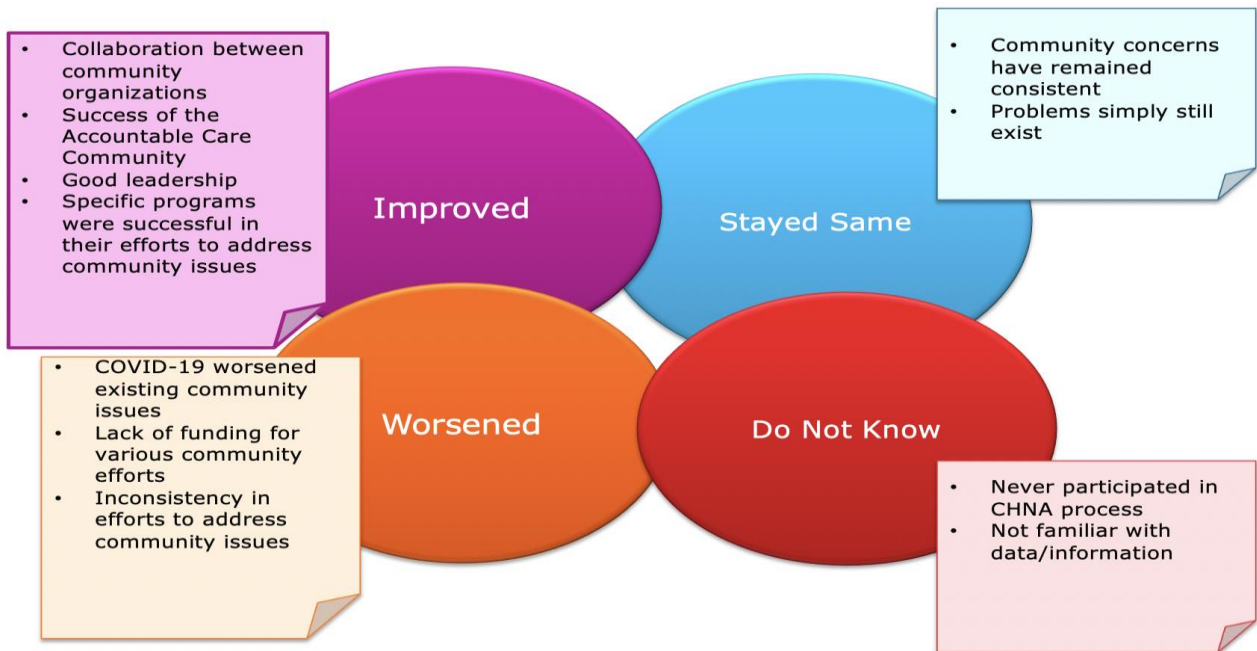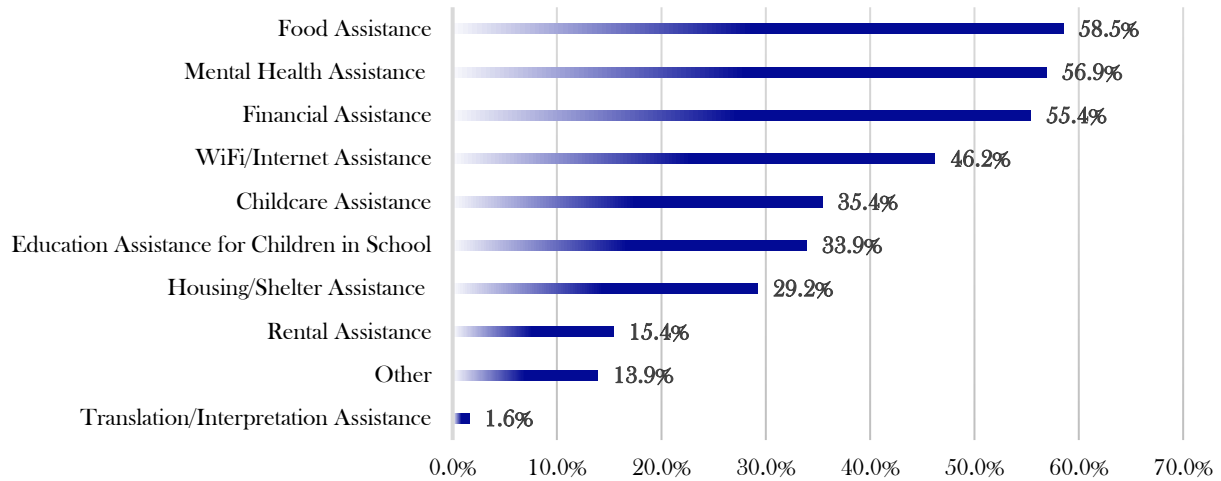# Q12) BASED ON YOUR ANSWER TO THE PREVIOUS QUESTION, PLEASE ELABORATE ON WHY YOU SELECTED THE ANSWER YOU CHOSE.

**Improved**
- Collaboration between community organizations
- Success of the Accountable Care Community
- Good leadership
- Specific programs were successful in their efforts to address community issues

**Stayed Same**
- Community concerns have remained consistent
- Problems simply still exist

**Worsened**
- COVID-19 worsened existing community issues
- Lack of funding for various community efforts
- Inconsistency in efforts to address community issues

**Do Not Know**
- Never participated in CHNA process
- Not familiar with data/information

# AS A RESULT OF COVID-19, WHICH OF THE FOLLOWING SERVICES OR TYPES OF ASSISTANCE HAVE BEEN NEEDED MOST BY THE THOSE WITHIN YOUR COMMUNITY? (PLEASE SELECT YOUR TOP 3)

| Service | Percentage |
|---|---|
| Food Assistance | 58.5% |
| Mental Health Assistance | 56.9% |
| Financial Assistance | 55.4% |
| WiFi/Internet Assistance | 46.2% |
| Childcare Assistance | 35.4% |
| Education Assistance for Children in School | 33.9% |
| Housing/Shelter Assistance | 29.2% |
| Rental Assistance | 15.4% |
| Other | 13.9% |
| Translation/Interpretation Assistance | 1.6% |

## 11.6  Focus Group Facilitation Guide

### Top 10 Community Issues Identified via Community Stakeholder Survey (in no particular order):
*Both health-related and social/environmental issues are listed.

Transportation
Adverse Childhood Experiences (ACEs)
Food Insecurity/Lack of Proper Nutrition
Housing
Education
Discrimination
Access to Care
Substance Abuse
Mental Health
Chronic Disease

### Prioritization of Community Issues:
*Attendees will be asked to vote on which 3 community issues they believe should have priority. Selection of the top 3 community issues will be based on majority of votes.*

***Question****: Out of 10 community issues listed above, which 3 do you believe should be priority focus areas for improvement efforts moving forward?*

### Focus Group Discussion Questions:
*These discussions will be tailored to the 3 focus areas selected by the group.

#### Questions for Focus Area #1, #2, and #3:
*Each of the 7 questions below will be asked independently for each of the 3 focus areas identified. One focus area will be discussed at a time, meaning Questions 1-7 will be asked for Focus Area #1 before moving on to Focus Area #2, and so on.

*1)* *What do you believe the potential root causes are for this focus area?*
*2)* *What resources currently exist in your community to address this focus area? (programs, services, etc.)*
*3)* *What are some possible solutions to address this focus area?*
*4)* *What resources are needed that don't currently exist in your community to address this focus area?*
*5)* *Who should lead the effort to address this focus area?*
*6)* *Who else should be involved in the effort to address this focus area?*
*If not already mentioned,*
*7)* *What ideas do you have for the health system to address this focus area?*

#### Question for ALL 3 Focus Areas:
*Question is for any or all of the 3 focus areas identified.

*8) How will COVID-19 affect the community's ability to address any of the focus areas identified?*

## 11.7  Data Sources and References

- Centers for Disease Control and Prevention
- America's Health Rankings
- County Health Rankings
- Sg2 Analytics
- Kids Count
- March of Dimes
- Open Data DC
- Virginia Department of Health
- Virginia Realtors
- National Association of County and City Health Officials